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ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

ΤΜΗΜΑ ΣΤΑΤΙΣΤΙΚΗΣ
ΚΑΙ ΑΣΦΑΛΙΣΤΙΚΗΣ ΕΠΙΣΤΗΜΗΣ

ΜΕΤΑΠΤΥΧΙΑΚΟ ΠΡΟΓΡΑΜΜΑ ΣΠΟΥΔΩΝ ΣΤΗΝ
ΕΦΑΡΜΟΣΜΕΝΗ ΣΤΑΤΙΣΤΙΚΗ

ΕΚΤΙΜΗΣΗ ΤΟΥ ΕΠΙΠΕΔΟΥ ΑΓΧΟΥΣ ΚΑΙ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΖΩΗΣ ΤΟΥ ΕΡΓΑΤΙΚΟΥ ΔΥΝΑΜΙΚΟΥ ΣΤΗΝ ΕΛΛΑΔΑ

Συμεών Μαριστάνογλου

Διπλωματική Εργασία
που υποβλήθηκε στο Τμήμα Στατιστικής και
Ασφαλιστικής Επιστήμης του Πανεπιστημίου
Πειραιώς ως μέρος των απαιτήσεων για την
απόκτηση του Μεταπτυχιακού Διπλώματος
Ειδίκευσης στην Εφαρμοσμένη Στατιστική.

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Η παρούσα Διπλωματική Εργασία εγκρίθηκε ομόφωνα από την Τριμελή Εξεταστική Επιτροπή που ορίσθηκε από τη ΓΣΕΣ του Τμήματος Στατιστικής και Ασφαλιστικής Επιστήμης του Πανεπιστημίου Πειραιώς στην υπ' αριθμ. …….. συνεδρίασή του σύμφωνα με τον Εσωτερικό Κανονισμό Λειτουργίας του Προγράμματος Μεταπτυχιακών Σπουδών στην Εφαρμοσμένη Στατιστική.

Τα μέλη της Επιτροπής ήταν:

- Επίκουρος Καθηγητής Τζαβελάς Γεώργιος (Επιβλέπων)
- Αναπληρώτρια Καθηγήτρια Βερροπούλου Γεωργία
- Καθηγητής Τσίμπος Κλέων

Η έγκριση της Διπλωματική Εργασίας από το Τμήμα Στατιστικής και Ασφαλιστικής Επιστήμης του Πανεπιστημίου Πειραιώς δεν υποδηλώνει αποδοχή των γνωμών του συγγραφέα.

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Θα ήθελα να ευχαριστήσω τον επιβλέποντα καθηγητή μου, κύριο Γεώργιο Τζαβελά, γιατί προσπάθησε να με βοηθήσει σε ένα διαδικαστικό πρόβλημα που είχα στην πρώτη μου διπλωματική και γιατί στη συνέχεια με ανέλαβε και με βοήθησε να ολοκληρώσω την παρούσα εργασία.

Επίσης τους συναδέλφους και φίλους Λιβέρη Αθανασία, Μίχου Ελένη και Τσιάκαλο Παναγιώτη για τη συμβολή τους στο να γίνουν ακόμα πιο ενδιαφέροντα τα εξάμηνα του μεταπτυχιακού.

Abstract

In this thesis the level of stress and quality of life of the workforce in Greece is explored. Many studies have shown that profession is a significant factor contributing to anxiety. Levels of stress and quality of life in all different categories of professions are studied in order to detect which one is the most affected by anxiety as well as which factors are related to anxiety.

Demographic and clinical data were used from a convenience sample which was collected in 2011, in the beginning of Greece's economic crisis.

At first all the statistically significant factors are identified and it is confirmed that the subjects' profession indeed affects level of anxiety and, subsequently, quality of life. Freelancers have higher anxiety levels, which lead to lower levels of quality of life; farmers exhibit relatively low anxiety levels. Lastly a profile for all the categories of professions is created by using the statistically significant variables in each category.

Περίληψη

Στην παρούσα εργασία μελετάται το επίπεδο άγχους και ποιότητας ζωής στο εργατικό δυναμικό της Ελλάδος. Σε πολλές μελέτες έχει δειχθεί ότι το επάγγελμα είναι ένας σημαντικός παράγοντας άγχους. Μελετάται το επίπεδο άγχους και ποιότητας ζωής για κάθε κατηγορία επαγγελμάτων με σκοπό να διαπιστωθεί ποια από αυτές επηρεάζεται περισσότερο από το άγχος, καθώς και ποιοι παράγοντες συμβάλλουν σε αυτό.

Η μελέτη έγινε με δημογραφικά και κλινικά δεδομένα από ένα δείγμα ευκολίας που επιλέχθηκε το 2011, δηλαδή στην αρχή της οικονομικής κρίσης στην Ελλάδα.

Αρχικά βρίσκονται οι στατιστικά σημαντικοί παράγοντες και επιβεβαιώνεται ότι ο παράγοντας επάγγελμα σχετίζεται με το επίπεδο άγχους και ποιότητας ζωής σε κάθε χρησιμοποιούμενη κλίμακα. Αποδεικνύεται ότι οι ελεύθεροι επαγγελματίες έχουν το περισσότερο άγχος, το οποίο οδηγεί και σε χαμηλότερα επίπεδα στην ποιότητα ζωής, ενώ αντίθετα οι αγρότες έχουν το λιγότερο άγχος. Τέλος δημιουργείται το προφίλ των επαγγελματικών ομάδων με βάση τις στατιστικά σημαντικές μεταβλητές σε κάθε ομάδα επαγγελμάτων.

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CHAPTER 1: INTRODUCTION

1.1 Anxiety

Anxiety is a factor that is being studied a lot recently, especially now that countries all over the world face many different crises. Greece is one of those countries being hit by economic crisis (and recently with refugee issue). Anxiety can affect every aspect of our living, from our work performance to our social behavior and relationships. It is connected with emotions, fears, memories, stress and many other factors, which come from many different potential causes and degrees of intensity. Because of that it is difficult to give a short definition, but an attempt can be made to try to explain what it means in scientific terms.

Anxiety is a multisystem response to a perceived threat or danger. It reflects a combination of biochemical changes in the body, the patient's personal history and memory, and the social situation. As studies have shown by now, anxiety is a uniquely human experience. Other animals clearly know fear, but human anxiety involves an ability, to use memory and imagination to move backward and forward in time, that animals do not appear to have. The anxiety that occurs in post-traumatic syndromes indicates that human memory is a much more complicated mental function than animal memory. Moreover, a large portion of human anxiety is produced by anticipation of future events. Without a sense of personal continuity over time, people would not have the "raw materials" of anxiety. It is important to distinguish between anxiety as a feeling or experience, and an anxiety disorder as a psychiatric diagnosis. A person may feel anxious without having an anxiety disorder. In addition, a person facing a clear and present danger or a realistic fear is not usually considered to be in a state of anxiety. In addition, anxiety frequently occurs as a symptom in other categories of psychiatric disturbance.

Anxiety can have a number of different causes. It is a multidimensional response to stimuli in the person's environment, or a response to an internal stimulus resulting from a combination of general biological and individual psychological processes. Sometimes symptoms are expressed through behavioral changes, but it is pretty often (especially in higher degrees of anxiety) to note somatic disorders or even diseases.

It can be produced by physical responses to stress or by certain disease processes or medications, phobias, stress about future, childhood traumas and many social and environmental stressors. The diagnosis of anxiety is difficult and complex because of the variety of its causes and the highly personalized and individualized nature of its symptom formation. There are no medical tests that can be used to diagnose anxiety by itself. When a doctor examines an anxious patient, he or she will first rule out physical conditions and diseases that have anxiety as a symptom. Apart from these exclusions, the physical examination is usually inconclusive. Not all patients with anxiety require treatment, but for more severe cases, treatment is recommended. Because anxiety often has more than one cause and is experienced in highly individual ways, its treatment usually requires more than one

type of therapy. In addition, there is no way to tell in advance how patients will respond to a specific drug or therapy. Sometimes the doctor will need to try different medications or methods of treatment before finding the best combination for the particular patient. It usually takes about six to eight weeks for the doctor to evaluate the effectiveness of a treatment regimen. Alternative treatments for anxiety cover a variety of approaches (meditation, hydrotherapy, yoga etc.).

1.2 Quality of Life

Quality of life (QOL) is a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life. What makes it challenging to measure is that, although the term "quality of life" has meaning for nearly everyone and every academic discipline, individuals and groups can define it differently. Although health is one of the important domains of overall quality of life, there are other domains as well - for instance, jobs, housing, schools, the neighborhood. Aspects of culture, values, and spirituality are also key domains of overall quality of life that add to the complexity of its measurement. Nevertheless, researchers have developed useful techniques that have helped to conceptualize and measure these multiple domains and how they relate to each other.

The concept of health-related quality of life (HRQOL) and its determinants have evolved since the 1980s to encompass those aspects of overall quality of life that can be clearly shown to affect health - either physical or mental.

- On the individual level, HRQOL includes physical and mental health perceptions (e.g., energy level, mood) and their correlates - including health risks and conditions, functional status, social support, and socio-economic status.
- On the community level, HRQOL includes community - level resources, conditions, policies, and practices that influence a population's health perceptions and functional status.
- On the basis of a synthesis of the scientific literature and advice from its public health partners, CDC[1] has defined HRQOL as "an individual's or group's perceived physical and mental health over time.

The construct of HRQOL enables health agencies to legitimately address broader areas of healthy public policy around a common theme in collaboration with a wider circle of health partners, including social service agencies, community planners, and business groups.

Focusing on HRQOL as an outcome can bridge boundaries between disciplines and between social, mental, and medical services. Several recent federal policy changes

[1] Centers of Disease Control and prevention

underscore the need for measuring HRQOL to supplement public health's traditional measures of morbidity and mortality. *Healthy People 2000, 2010, and 2020* identified quality of life improvement as a central public health goal.

- HRQOL is related to both self-reported chronic diseases (diabetes, breast cancer, arthritis, and hypertension) and their risk factors (body mass index, physical inactivity, and smoking status).
- Measuring HRQOL can help determine the burden of preventable disease, injuries, and disabilities, and can provide valuable new insights into the relationships between HRQOL and risk factors.
- Measuring HRQOL will help monitor progress in achieving the nation's health objectives.

Analysis of HRQOL surveillance data can identify subgroups with relatively poor perceived health and help to guide interventions to improve their situations and avert more serious consequences. Interpretation and publication of these data can help identify needs for health policies and legislation, help to allocate resources based on unmet needs, guide the development of strategic plans, and monitor the effectiveness of broad community interventions.

It can be easily understood that measuring the QoL is an extremely useful and can lead to very useful results and conclusions. Of course this is pretty difficult because of its complexity and that leads to the fact that nowadays there are many questionnaires with many different versions that measure QoL with different procedures. Some of them are being used to measure specific aspects of QoL, others for specific diseases and others are being used to examine individual QoL in general.

It is worth mentioning that many questionnaires about QoL examine the subject's level of anxiety or depression.

1.3 Questionnaires and sample

In this study the aim was to measure both subjects' levels of anxiety and quality of life. For the first category subjects were asked to complete the Hamilton Rating Scale for Depression, the State-Trait Anxiety Inventory and the Ways of Coping questionnaires. Greek versions of these questionnaires were used for the study. These versions are not just translations in several questions, but questions from the official versions were left out, others were replaced and in some cases there were some (slightly) different questions entered the greek versions.

For the purpose of this study subjects' answers from the above questionnaires were used to complete the General Health Questionnaires (Short-Form)-12, the EQ-5D-5L and the 15D which measure QoL. So subjects had no knowledge of those questionnaires.

Something really important is that this sample cannot be considered representative of Greece's population, or even the exact city or hospital, because it was taken under a non-probability sampling method from people who were easy to reach from a nurse, so it constitutes a convenience sample just for the purpose of academic research. Thus it can be considered as a pilot study.

1.4 Questionnaires description

In this chapter it was considered better to present the english versions of the questionnaires by giving some general information about them.

1.4.1 Hamilton Rating Scale for Depression

The Hamilton Rating Scale for Depression (HRSD, also known as the Ham-D) is one of a number of diagnostic tools that may be useful in helping to evaluate patients effectively when depression is an issue. Nowadays it is considered to be the most widely used clinician-administered depression assessment scale.

Depression is not only a spectrum disorder but also a symptom caused by other mental health issues. Therefore, effective treatment starts with a thorough understanding of how and perhaps why depression is an issue for the patient. Using the Hamilton Rating Scale is one way to help pinpoint the most beneficial therapeutic tools in treatment.

The HAM-D has proven useful for many years as a way of determining a patient's level of depression before, during, and after treatment. It should be administered by a clinician experienced in working with psychiatric patients.

The original version contains 17 items (HDRS17) pertaining to symptoms of depression experienced over the past week. Although the scale was designed for completion after an unstructured clinical interview, there are now semi-structured interview guides available. The HDRS was originally developed for hospital inpatients, thus the emphasis on melancholic and physical symptoms of depression. A later 21-item version (HDRS21) included 4 items intended to subtype the depression, but which are sometimes, incorrectly, used to rate severity.

Method for scoring varies by version. For the HDRS17, a score of 0-7 is generally accepted to be within the normal range (or in clinical remission), while a score of 20 or higher (indicating at least moderate severity) is usually required for entry into a clinical trial.

A study published in the "Journal of Affective Disorders" says that the Hamilton Rating Scale for Depression is one of the best ways to determine the severity of depression

symptoms being experienced by a patient. Based on their score on the test, patients may be identified as follows:

- No depression: a score of 0 to 7
- Mild depression: a score of 8 to 16
- Moderate depression: a score of 17 to 23
- Severe depression: a score greater than 24

Because depression may co-exist with suicidal thoughts or actions, it is important to immediately stabilize the patient in recovery by defining a baseline of symptoms and then intervene with recommended treatment protocols and evidence-based therapies.

Later, the HRSD can be used again to assess progress in recovery. The "Journal of Nervous and Mental Disease" reports that the Hamilton Rating Scale for Depression is one of the most effective ways to determine whether or not anti-depressants are working to help an individual patient heal. If symptoms have worsened or remained the same, it may be necessary to alter the treatment plan to improve results.

The "Journal of Neurology, Neurosurgery, and Psychiatry with Practical Neurology" details the 17 different possible symptoms assessed by the Hamilton Rating Scale for Depression: Depressed mood, (Feelings of) Guilt, Suicide, Initial insomnia, Middle insomnia, Delayed insomnia, Work and interests, Retardation, Agitation, Psychological anxiety, Somatic anxiety, Gastrointestinal somatic symptoms, General somatic symptoms, Somatic genital symptoms, Hypochondriasis, Insight, and Weight loss.

All the above are rated on a three-point or five-point scale to allow for variability. Eight items are scored on a 5-point scale, ranging from 0 = "not present" to 4 = "severe", while nine are scored from 0 to 2.

Scores taken at the beginning of the patient's treatment are compared against scores later in treatment to assess progress and determine how to proceed. The scale has been translated into a number of languages. As well, there is an Interactive Voice Response version (IVR), a Seasonal Affective Disorder version (SIGH-SAD), and a Structured Interview Version (HDS-SIV). Numerous versions with varying lengths include the HDRS17, HDRS21, HDRS29, HDRS8, HDRS6, HDRS24, and HDRS7. There is also a mobile-friendly version of this scale, known as "the Mobile-friendly HAM-D" which is easily used online and via mobile devices for assessment at the point of care.

1.4.2 The State-Trait Anxiety Inventory (STAI)

The State-Trait Anxiety Inventory (STAI) is a commonly used measure of trait and state anxiety (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). It can be used in clinical settings to diagnose anxiety and to distinguish it from depressive syndromes. It also is often used in research as an indicator of caregiver distress and its purpose is to measure via

self-report the presence and severity of current symptoms of anxiety and a generalized propensity to be anxious.

There are 2 subscales within this measure. First, the State Anxiety Scale (S-Anxiety) evaluates the current state of anxiety, asking how respondents feel "right now," using items that measure subjective feelings of apprehension, tension, nervousness, worry, and activation/arousal of the autonomic nervous system. The Trait Anxiety Scale (T-Anxiety) evaluates relatively stable aspects of "anxiety proneness," including general states of calmness, confidence, and security. The intent of the T-anxiety scale is to characterize anxiety "proneness" as a longstanding trait or characteristic, and as such, the T-Anxiety is less responsive to change as compared to the S-Anxiety.

Form Y, its most popular version, has 20 items for assessing trait anxiety (T-Anxiety subscales) and 20 for state anxiety (S-Anxiety subscales). State anxiety items include: "I am tense; I am worried" and "I feel calm; I feel secure." Trait anxiety items include: "I worry too much over something that really doesn't matter" and "I am content; I am a steady person." Responses for the S-Anxiety scale assess intensity of current feelings "at this moment" with a 4-point scale: 1) not at all, 2) somewhat, 3) moderately so, and 4) very much so. Responses for the T-Anxiety scale assess frequency of feelings "in general" with a 4-point scale: 1) almost never, 2) sometimes, 3) often, and 4) almost always. Higher scores indicate greater anxiety. The STAI is appropriate for those who have at least a sixth-grade reading level. There is also a STAI for children (STAIC) with the same number of items. Short versions of the scales have been developed independently.

First published in 1970 with the original STAI-X, the STAI was revised in 1983 (STAI-Y) and has been used extensively in a number of chronic medical conditions including rheumatic conditions such as rheumatoid arthritis, systemic lupus erythematosus, fibromyalgia, and other musculoskeletal conditions.

Item scores are added to obtain subtest total scores. Scoring should be reversed for anxiety-absent items (19 items of the total 40).

Range of scores for each subtest is 20-80, the higher score indicating greater anxiety. A cut point of 39-40 has been suggested to detect clinically significant symptoms for the S-Anxiety scale; however, other studies have suggested a higher cut score of 54-55 for older adults. Normative values are available in the manual for adults, college students, and psychiatric samples.

Studies also have shown that it is a sensitive predictor of caregiver distress over time, and that it can vary with changes in support systems, health, and other individual characteristics (Elliott, Shewchuk, & Richards, 2001; Shewchuk, Richards & Elliott, 1998).

The STAI is among the most widely researched and widely used measures of general anxiety, and is available in 48 languages. Many use the STAI in rheumatologic conditions. This measure is relatively brief to administer, as it takes about 10 minutes to complete for an adult, and does not require costly or time consuming scoring or interpretation procedures. Therefore, this measure lends itself well to general use in research in the rheumatology clinic

and comparisons with other healthy, psychiatric, and medical populations. Specific instructions are provided for each of the S-Anxiety and T-Anxiety subscales.

Limitations include the limited availability of validation data specific to rheumatic disease. Additionally, there exists relatively poor validity of the scale, particularly the T-Anxiety subscale for differentiation anxious from depressed states. Further, because the intent of the T-Anxiety scale is to characterize a longstanding trait, clinicians and researchers should be mindful of this if seeking scales to detect change over a relatively short period of time. In general, for these purposes, many have opted to solely use the S-Anxiety subscale for the detection of longitudinal change.

1.4.3 Ways of coping (Revised) (WAYS)

The Ways of Coping (Revised) is a 66-item questionnaire containing a wide range of thoughts and acts that people use to deal with the internal and/or external demands of specific stressful encounters. Usually the encounter is described by the subject in an interview or in a brief written description saying who was involved, where it took place and what happened. Sometimes a particular encounter, such as a medical treatment or an academic examination, is selected by the investigator as the focus of the questionnaire.

Many investigators have asked if the Ways of Coping can be used to assess coping styles or traits. The measure is not designed for this purpose; it is designed as a process measure. It is possible though to look for consistency (style) across occasions by administering the measure repeatedly and then doing intra-individual analyses. Each administration, however, is focused on coping processes in a particular stressful encounter and not on coping styles or traits.

The revised Ways of Coping (Folkman & Lazarus, 1985) differs from the original Ways of Coping Checklist (Folkman & Lazarus, 1980) in several ways. The response format in the original version was Yes/No; on the revised version the subject responds on a 4-point Likert scale (0 = does not apply and/or not used; 3 = used a great deal). Redundant and unclear items were deleted or reworded, and several items, such as prayer, were added.

1.4.4 General Health Questionnaire (Short-Form) - 12

The General Health Questionnaire (GHQ) is a screening device for identifying minor psychiatric disorders in the general population and within community or non-psychiatric clinical settings such as primary care or general medical out-patients. The GHQ as a self-report instrument was designed for detection and assessment of individuals with an increased likelihood of current psychiatric disorder (Goldberg and Hillier 1979, McDowell and Newell 1987, Goldberg and Williams 1988). Suitable for all ages from adolescent upwards (not

children), it assesses the respondent's current state and asks if that differs from his or her usual state. It is therefore sensitive to short-term psychiatric disorders but not to long-standing attributes of the respondent. The self-administered questionnaire focuses on two major areas: (a) the inability to carry out normal functions; and (b) the appearance of new and distressing phenomena.

The original questionnaire consists of 60 items from which shorter versions were developed. Nowadays there are four different versions of the GHQ:

- **GHQ-60:** the fully detailed 60-item questionnaire
- **GHQ-30:** a short form without items relating to physical illness
- **GHQ-28:** a 28 item scaled version - assesses somatic symptoms, anxiety and insomnia, social dysfunction and severe depression
- **GHQ-12**: a quick, reliable and sensitive short form - ideal for research studies.

None of the above versions are free and they can be purchased by official websites. The reason GHQ-12 was preferred for this study was that the other versions had more specific questions (mostly about body) and could not be completed from the patients' answers in anxiety questionnaires.

1.4.5 EQ-5D-5L

EuroQol designed EQ-5D (nowadays EQ-5D-3L) for self-completion by respondents and it was ideally suited for use in postal surveys, in clinics and face-to-face interviews. It is cognitively simple, taking only a few minutes to complete and that is why it's probably the one which is used more nowadays (alongside with EQ-5D-5L).

In 2005, a Task Force was established within the EuroQol Group to investigate methods to improve the instrument's sensitivity and to reduce ceiling effects. After much discussion, the Task Force decided that there should be no change in the number of dimensions for a new version of EQ-5D. However, previously published studies by EuroQol Group members showed that experimental 5-level versions of EQ-5D could significantly increase reliability and sensitivity (discriminatory power) while maintaining feasibility and potentially reducing ceiling effects. The Group therefore decided that the new version of the EQ-5D should include five levels of severity in each of the existing five EQ-5D dimensions and that it would be called the EQ-5D-5L. The existing EQ-5D would be renamed as EQ-5D-3L.

The EQ-5D-5L still consists of two pages, the first with the EQ-5D-5L descriptive system and the second with the EQ visual Analogue scale (EQ VAS). The descriptive system comprises the same 5 dimensions as the EQ-5D-3L (mobility, self care, usual activities, pain/discomfort, anxiety/depression - there goes the 5D). However, each dimension now has 5 levels:

- no problems,

- slight problems,
- moderate problems,
- severe problems and
- extreme problems

It is easy to understand that 5L in the name of the questionnaire is coming from the number of answers.

Total score 0 represents a dead person but it is not the minimum. Negative scores which represent situations of persons considered to be worse than dead can be found in EQ-5D. The standardized extended version of EQ-5D was designed for the collection of health state values using a VAS rating scale - a vertical 20 cm visual analogue scale with the end points labelled best imaginable health state at the top and worst imaginable health state at the bottom having numeric values of 100 and 0 respectively. After the subject has finished answering the questions above, it can move to the next page where there is that scale. There it can put a grade from 0 to 100 % depending on how it is feeling that day. So, as it is written on the test itself, the subject can indicate itself how good or bad its own health is in its opinion. It is understood that this valuation depends only from the patients; no doctor has to do with this. The VAS scale is included in all versions of EQ-5Ds.

After all the patients of the survey have completed the test, the team that is responsible for it makes the scoring and so every patient that comes to the hospital after that can have a score that matches her/his condition (as said before 1 -100%- is the best, 0 is a dead person but scores have negative numbers as well) by the results of that survey.

In this study we couldn't afford to have a medical team for the scoring, so the procedure that was followed here was by examining total scores, just as in the other questionnaires.

1.4.6 15D

The 15D is a generic, comprehensive (15-dimensional), self-administered instrument for measuring Health Related Quality of Life among adults. It combines the advantages of a profile and a preference-based, single index measure. A set of utility or preference weights is used to generate the 15D score (single index number) on a 0-1 scale. In most of the important properties the 15D compares favorably with other preference-based generic instruments. This questionnaire is often called EQ-15D (although that's a mistake) because it has many similarities with the questionnaires of the (quiet) big category of EQs, such as those that were presented just before. Previously was explained that the number before the D used to imply the number of the dimensions (variables) that the patient was going to be asked about. It means the same here, so it can be understood that there are 15 dimensions: Mobility, Vision, Hearing, Breathing, Sleeping, Eating, Speech, Excretion (previously shown as Elimination), Usual activities, Mental function, Discomfort and symptoms, Depression, Distress, Vitality, and Sexual activity.

As for the possible answers that a patient can give, it is like EQ-5D-5L, so there are five ordinal levels on each dimension as shown before.

When a person fills in the 15D questionnaire, the result is a 15-dimensional description of his/her health status. It shows the position of the person on the levels of each of the 15 dimensions of health. This is referred to as the 15D profile. Similarly, a 15D profile for a group of persons (patients, population) can be constructed from the average position of the group on the levels of each of the 15 dimensions. It is recommended that the profiles are constructed on a 0-1 scale by using the variables, where the original ordinal numbers of the levels (1-5) have been replaced by level values produced by the valuation system.

The 15D is generally easy to find. Whoever wants to use it for academic or other, non-commercial, research can fill a form in the official website and it comes with a written permission for its usage.

The only restriction that comes with it is that it can be only used on adults. A team has worked on this subject to improve it with specific changes so it could be used on children as well. The result was to develop two different versions, based on 15D, for adolescents aged 12-15 years (16D) and for children aged 8-11 (17D).

1.5 Methodology

Many tests require for some criteria to apply so they can be considered accurate. Most of these criteria of statistical inference are based on restrictive assumptions about the population distribution from which a (random) sample is taken. If those are satisfied then parametric statistics and several parametric tests can be used.

Sometimes it is very difficult to test if all those assumptions are satisfied. Whenever these assumptions are not satisfied (or there is uncertainty) it is possible to apply several non-parametric statistics and relevant non-parametric tests. In this study only non-parametric tests will be used.

1.5.1 Kolmogorov-Smirnov test for normality

Let $x_1, \ldots, x_n$ be an ordered sample with $x_1 \leq \ldots \leq x_n$ and define $S_n(x)$ as follows:

$$S_n(x) = \begin{cases} 0, & x < x_1 \\ k/n, & x_k \leq x < x_{k+1} \\ 1, & x \geq x_n \end{cases}$$

Now suppose that the sample comes from a population with cumulative distribution function $F(x)$ and define D_n as follows:

$$D_n = \max_x |F(x) - S_n(x)|$$

It can be shown that D_n doesn't depend on F. Since S_n(x) depends on the sample chosen, D_n is a random variable. Our objective is to use D_n as a way of estimating $F(x)$.

The distribution of D_n can be calculated (Kolmogorov distribution) but for our purposes now the important aspect of this distribution are the critical values. These can be found in the Kolmogorov-Smirnov Table.

If $D_{n,\alpha}$ is the critical value from the table, then $P(D_n \leq D_{n,\alpha}) = 1 - \alpha$. D_n can be used to test the hypothesis that a random sample came from a population with a specific distribution function $F(x)$. If

$$\max_x |F(x) - S_n(x)| \leq D_{n,a}$$

then the sample data is a good fit with $F(x)$.

Also from the definition of D_n given above, it follows that

$$\begin{aligned} 1-a = P(D_n \leq D_{n,a}) &= P(\max_x |F(x) - S_n(x)| \leq D_{n,a}) \\ &= P(S_n(x) - D_{n,a} \leq F(x) \leq S_n(x) + D_{n,a} \quad for\ all\ x) \\ &= P(|F(x) - S_n(x)| \leq D_{n,a} \quad for\ all\ x) \end{aligned}$$

Thus $S_n(x) \pm D_{n,\alpha}$ provides a confidence interval for F(x).

These kind of tests are used for hypothesis testing by having as null hypothesis:

$$H_0 : data\ follow normal\ distribution$$

1.5.2 Mann-Whitney U test

Mann-Whitney U is a non-parametric test which is being used to test the null hypothesis that two independent samples are coming from the same population (or if they are coming from the same distribution or if they have the same median).

Let $x_1, \ldots, x_n$ be the sample of population one and $y_1, \ldots, y_m$ the sample of population two. Mann-Whitney U test is based in the comparisons between x_i of the first sample and y_i of the second. First sample's sample size is n and second's m, so the total amount of comparisons is $n \times m$.

If the two samples have the same median then every x_i has the same possibility to be greater or less than every y_i, so the null hypothesis is:

$$H_0 : P(x_i > y_i) = 0.5 \ vs\ H_1 : P(x_i > y_i) \neq 0.5$$

To find the value of U of the Mann-Whitney test we count the amount of times that a single observation x_i from the first sample is greater than a y_i observation from the second sample. This number is called U_x. In the same way we count the amount of times that an

observation y_i is greater that a x_i and call this number U_y. Under the above null hypothesis U_x and U_y are expected to be close (theoretically -almost- equal).

We set $U = \min\{U_x, U_y\}$ and we find the critical value U_{cr} from Mann-Whitney test's table. If $U<U_{cr}$ then we reject the null hypothesis. If can, use the normal (distribution) approach when $n \times m > 20$. We set μ_U and σ_U as given below:

$$\mu_U = \frac{nm}{2} \text{ and } \sigma_U = \sqrt{\frac{nm(n+m+1)}{12}}$$

It is possible to find same observation with the same value in the samples. In those cases we add half unit in both U_x and U_y for every couple of equal observations. In the normal approach σ_U should be re-defined the in an appropriate way.

1.5.3 Kruskal-Wallis H test

Kruskal-Wallis H test is a non-parametric test which is used to test the null hypothesis that *k* populations have the same distribution by using *k* independent samples from those populations.

Let's assume there are *n*-sized samples ($1 \le i \le k$) from *k* independent populations. *N* is the total amount of observations ($N= n_1+ n_2+\ldots+ n_k$). Our *N* observations are classified by order, from the lowest to the greatest, and in each one of them a rank is given according to its rank (1 to the lowest, 2 to the next, etc.). In cases of ties rank is being adjusted by giving in every observation of the same team (tie) the average rank according to the original ranks. Subsequently R is calculated ($1 \le i \le k$) by summing the final ranks of every sample's observations.

Kruskal-Wallis *H* is given by the formula below:

$$H = \frac{\frac{12}{N(N+1)} \sum_{i=1}^{k} \frac{R_i^2}{n_i} - 3(N+1)}{1 - \sum \frac{t^3 - t}{N^3 - N}}$$

Denominator's purpose is to correct any anomaly might come from ties and the sum is based in each team of equal observations with size t. If there are no ties then every one of them is a team with size t=1 and the denominator is equal to 1.

Lastly we find the critical value H_{cr} from Kruscal-Wallis table. If $H>H_{cr}$ we reject the null hypothesis. *H* follows asymptotically normal distribution χ^2 with *k*-1 degrees of freedom.

1.5.4 Spearman's correlation

Spearman's correlation coefficient is being used when the data do not follow normal distribution. It is appropriate for both continuous and discrete variables and it is often denoted by the letters ρ or r_s. It is given by the formula:

$$r_s = 1 - \frac{6\sum_{i=1}^{n} d_i^{\,2}}{n(n^2-1)},$$

where $d_i = R(X_i) - R(Y_i)$ are the differences of the ranks of X_i and Y_i when given in order.

Spearman's correlation does not depend in variables' units of measurement. It takes values from -1 to 1. When ρ is equal to 0 the two variables have no correlation, while in -1 means a perfect negative linear relation and +1 a perfect positive one. In general positive ρ means positive correlation (when one increases the other one increases as well) and negative ρ means negative correlation (when one increases the other decreases) between the two variables.

1.5.5 R^2 and R_{adj}^2 coefficients of determination

When a linear regression $y = \beta_0 + \beta_i x_i \ (i = 1, 2..., \nu)$ is applied it is easy to see (DETECT ?) how much of the total variability (SSTO) is explained by our model (SSR). This can give us a simple way to evaluate our model by coefficient of determination R^2, which is given by the formula:

$$R^2 = \frac{SSR}{SSTO} = 1 - \frac{SSE}{SSTO}$$

R^2 can be perceived either as the proportion of the total variability that is explained by our data, or as 100% minus the proportion of the total variability that stays unexplained (SSE). It takes values from 0 (when none of the total variability is explained by our data, so SSR=0 and SSE=1) to 1 (when all of the total variability is explained by our data, so SSR=1 and SSE=0). R^2 is used to see if our regression model is good (if it explains much of the total variability) or not. It is also used to compare different regression models, with the one with the greatest R^2 value considered to be the best. However, when you add a variable in a multiple regression model without removing another R^2 cannot be decreased no matter what. It will either increase or remain the same if the new variable doesn't explain any of the unexplained variability of the first model.

For this matter there is another coefficient of determination, R_{adj}^2. This coefficient is given by the formula:

$$R_{adj}^{\,2} = \frac{\frac{SSE_p}{\nu - p}}{\frac{SSTO}{\nu - 1}} = 1 - \frac{\frac{MSE_p}{SSTO}}{\frac{\nu - 1}{\nu - 1}} = 1 - \frac{\nu - 1}{SSTO} MSE_p,$$

where p is the number of the parameters in the regression model and v the number of observations (the amount of data).

The advantage of R_{adj}^2 in comparison with R^2 is that it can be reduced if a variable is added in a multiple regression model (without removing another) if this variable is not considered statistically significant and does not explain any (or enough) of the variability that was unexplained in the first model. So when two or more models are compared, the one with the greatest value of R_{adj}^2 is the best.

1.5.6 Multiple Correspondence analysis

Multiple Correspondence Analysis (MCA) is a technique for nominal categorical data, which is used to detect possible relations between variables. It can be understood as a generalization of Correspondence Analysis (CA) to the case where there are more than two variables. MCA is a procedure that represents data as points in a low-dimensional (in this study 2-dimensional) Euclidean space.

MCA is performed by applying the CA algorithm to either an indicator matrix (also called complete disjunctive table - CDT) or a Burt table formed from these variables. An indicator matrix is an individuals × variables matrix, where the rows represent individuals and the columns are dummy variables representing categories of the variables. Analyzing the indicator matrix allows the direct representation of individuals as points in geometric space. The Burt table is the symmetric matrix of all two-way cross-tabulations between the categorical variables, and has an analogy to the covariance matrix of continuous variables. Analyzing the Burt table is a more natural generalization of simple correspondence analysis, and individuals or the means of groups of individuals can be added as supplementary points to the graphical display.

In the indicator matrix approach, associations between variables are uncovered by calculating the chi-square distance between different categories of the variables and between the individuals (or respondents). These associations are then represented graphically as "maps", which eases the interpretation of the structures in the data. These “maps” were used in this study to determine possible relations between the variables.

1.5 Outline of the thesis

The descriptive statistics of the demographic and clinical data are presented in Chapter 2 with the use of tables and charts.

The first analysis of the questionnaires about anxiety, with statistical tests trying to detect differences between the variables’ levels is presented in Chapter 3.

The first analysis of the questionnaires about quality of life, with statistical tests trying to detect differences between the variables' levels is presented in Chapter 4.

Linear regressions in the variables that found to be (statistically) significant in the previous chapters, as long as regressions in each level of the variable "Profession", are presented in Chapter 5.

An attempt to separate anxiety in temporary and permanent by using one of the anxiety questionnaires is made in Chapter 6.

Relations between the questionnaires' total scores and the professions with multiple correspondence analysis are presented in Chapter 7.

Results are reported in Chapter 8.

CHAPTER 2: DESCRIPTIVE STATISTICS

2.1 Introduction

As mentioned before the data of this study are coming from questionnaires completed by patients in a hospital. Patients completed the Hamilton Rating Scale for Depression, the State-Trait Anxiety Inventory and the Ways of Coping questionnaires. The General Health Questionnaire (Short-Form)-12, the EQ-5D-3L and the 15D questionnaires where completed for the purposes of that study from similar questions by those questionnaires that were originally completed by the patients.

There were more variables in the data, but some of them were not included in this study because they were not found to be important. One of them, "Nationality", was chosen to be presented here so that the reason they were left out can be highlighted.

2.2 Descriptive Statistics of the sample

The tables with the statistics about missing values are not given due to space saving but there aren't any in the variables of the sample.

2.2.1 Gender

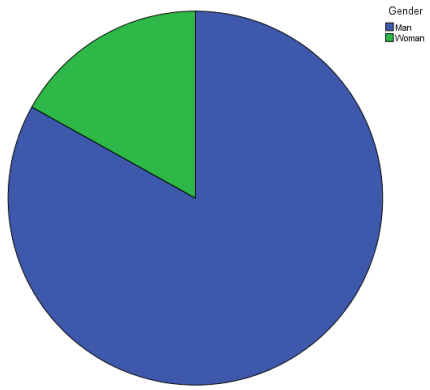
TABLE 2.2.1

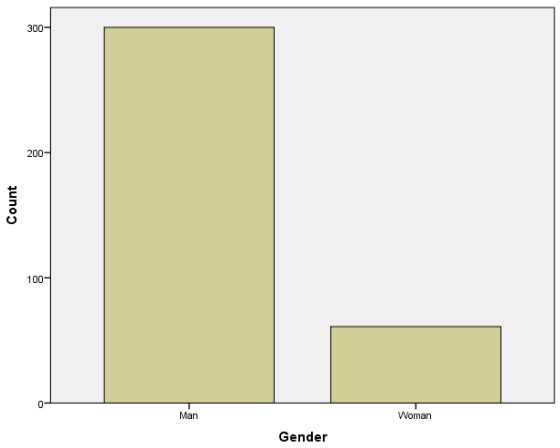
Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Man	300	83,1	83,1	83,1
	Woman	61	16,9	16,9	100,0
	Total	361	100,0	100,0	

From the total of 361 patients, 300 are men (83.1%) and 61 are women (16.9%). The big difference between the two groups can be seen in the charts below.

CHART 2.2.1.1	CHART 2.2.1.2
Pie chart	Bar chart





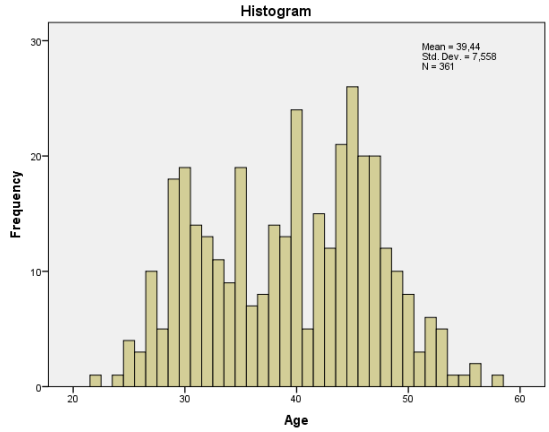
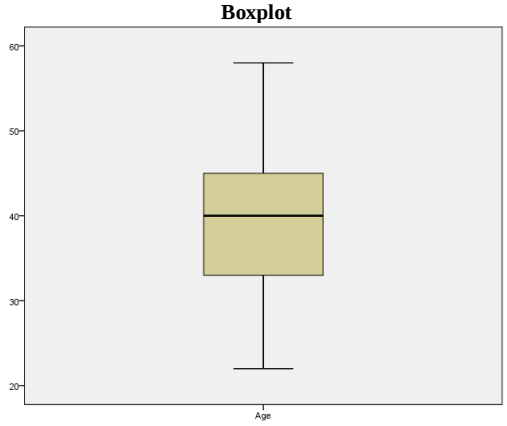
2.2.2 Age

TABLE 2.2.2

Descriptives

			Statistic	Std. Error
Age	Mean		39,44	,398
	95% Confidence Interval for Mean	Lower Bound	38,66	
		Upper Bound	40,22	
	5% Trimmed Mean		39,42	
	Median		40,00	
	Variance		57,125	
	Std. Deviation		7,558	
	Minimum		22	
	Maximum		58	
	Range		36	
	Interquartile Range		12	
	Skewness		-,085	,128
	Kurtosis		-,958	,256

Mean is 39.44 ± 0.398 years old and median 40 years old. Variance is 57.125, which means that standard deviation is 7.558. The youngest patient was 22 and the oldest 58 years old. This is really important because many aspects of the questionnaires focus on mobility and problems on daily activities, which means that this study won't be affected from problems in those aspects coming naturally from age (> 65 years old).

CHART 2.2.2.1	CHART 2.2.2.2
	

It is clear from the histogram that most of the patients are around 30, 40 and 45 years old and from the boxplot that the median of the data is lying between 34 and 44 years old.

2.2.3 Marital Status

Since the first part of the questionnaires is focused on anxiety, someone could suspect that if a person is single it could be easier to feel alone and result into some kind of depression. Same applies for widowed but, since married couples can have problems too (e.g. with raising a child) it would be useful to have patients from all those categories.

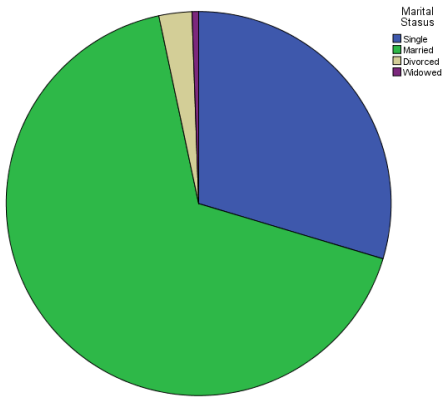
TABLE 2.2.3

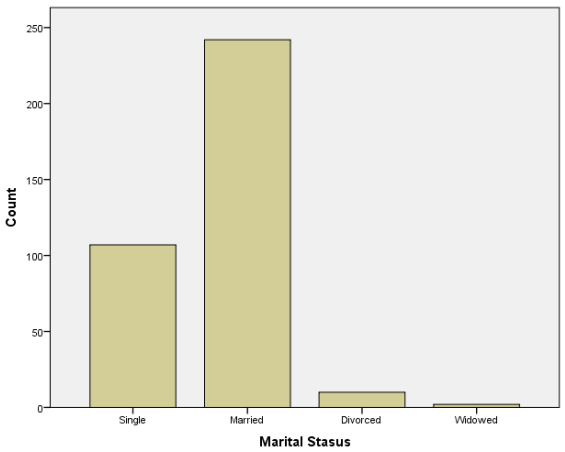
Marital Stasus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	107	29,6	29,6	29,6
	Married	242	67,0	67,0	96,7
	Divorced	10	2,8	2,8	99,4
	Widowed	2	,6	,6	100,0
	Total	361	100,0	100,0	

From the total sample of 361 patients, 107 are single (29.6% of the patients), 242 are married (67%), 10 are divorced (2.8%) and 2 are widowed (0.6%). Divorced and widowed constitute a very small part of the data, so the differences can be focused on whether a patient is member of an active marriage or not.

CHART 2.2.3.1	CHART 2.2.3.2
Pie chart	Bar chart





Categories “Divorced” and “Widowed” are very small in comparison with “Single” and “Married” as indicated by the charts as well.

2.2.4 Number of children

Following the previous reasoning number of children is a factor that might make a difference in depression. More children mean better chances not to feel alone and give more meaning in someone’s life, or even more reasons to live. On the other hand being responsible for more lives than their own can lead into more stress and anxiety and consequently lead to depression. This variable is going to be handled as it was categorically, since families with five or more children are rare in Greece, so the expectation is there won’t be a big variety of answers.

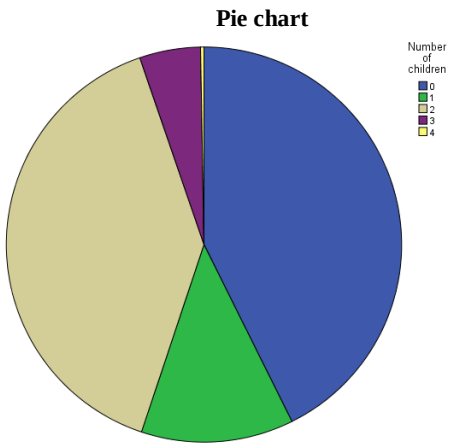
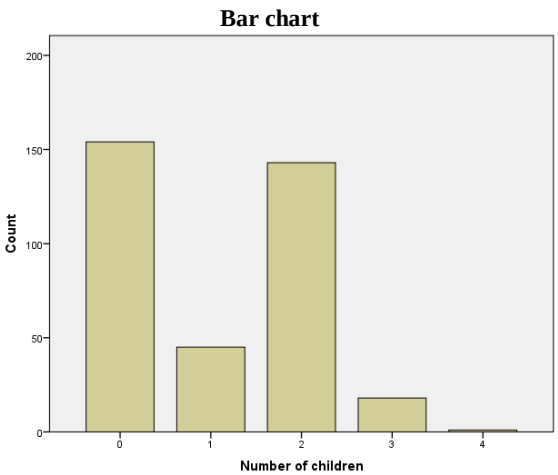
TABLE 2.2.4

Number of children

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	154	42,7	42,7	42,7
	1	45	12,5	12,5	55,1
	2	143	39,6	39,6	94,7
	3	18	5,0	5,0	99,7
	4	1	,3	,3	100,0
	Total	361	100,0	100,0	

The above reasoning was right since the largest number of children in the data is 4. From 361 patients 154 have no children (42.7%), 45 have 1 child (12.5%), 143 have two children (39.6%), 18 have 3 children (5%) and only 1 has 4 children (0.3%). From the perspective of loneliness a variable with possible answers “Yes” or “No” could be used to the

question “Do you have any children”, but given this variable like this can be more useful from the perspective of the opening reasoning.

CHART 2.2.4.1	CHART 2.2.4.2
	

2.2.5 Degree

This variable might seem irrelevant but it’s not if someone considers that it is easier to find a job being a degree holder, but also it can be better for the overall perspective and acceptance of ourselves. Plus there are always different kinds of advantages, since you can earn many things with learning to earn a degree, from changing the way of thinking or the way you face difficulties to learning how to organize time and handling responsibilities.

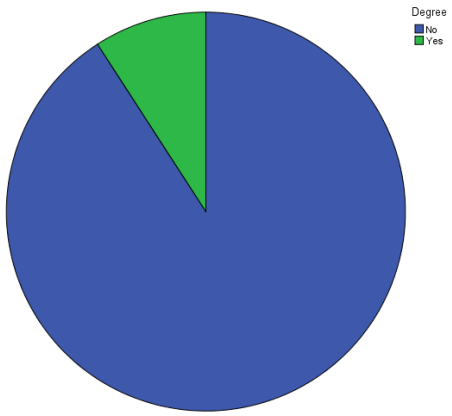
TABLE 2.2.5

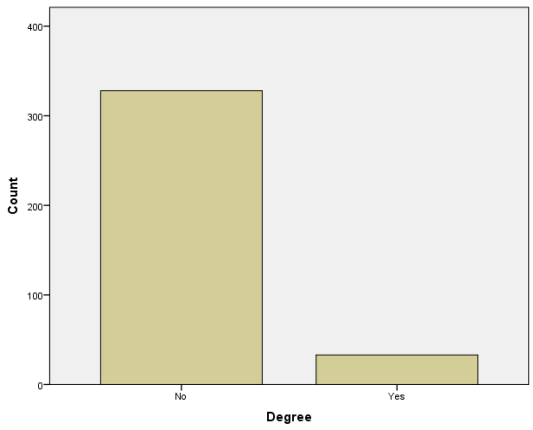
Degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	328	90,9	90,9	90,9
	Yes	33	9,1	9,1	100,0
	Total	361	100,0	100,0	

There are no missing values and from the 361 patients 328 have no degree (90.9%) and 33 have at least one (9.1%) (Table 2.2.5).

CHART 2.2.5.1	CHART 2.2.5.2
Pie chart	Bar chart





2.2.6 Second degree

Since only 9.1% of the sample has at least one degree the expectation is that there will be a really small percentage of people having a second degree.

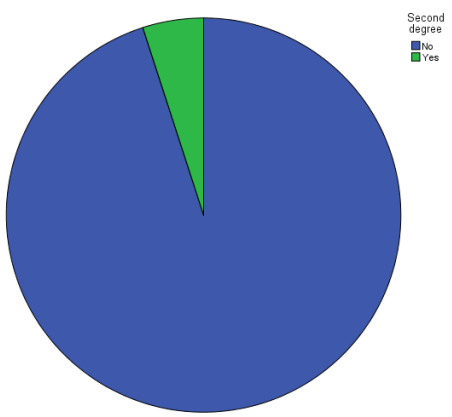
TABLE 2.2.6

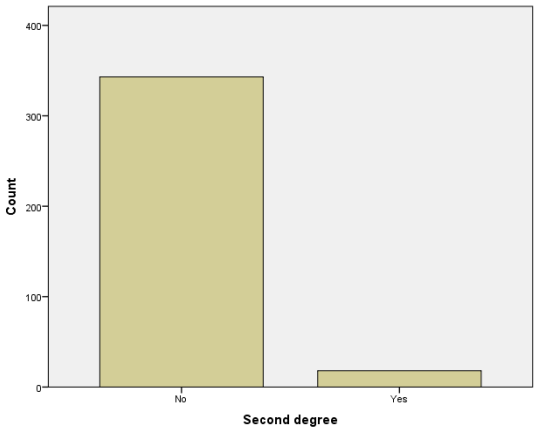
Second degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	343	95,0	95,0	95,0
	Yes	18	5,0	5,0	100,0
	Total	361	100,0	100,0	

The result is pretty much as it was expected to be and only 5% have a second degree. However this proportion seems pretty high when thinking that more than 50% of those who have at least one degree also have a second one.

CHART 2.2.6.1	CHART 2.2.6.2
Pie chart	Bar chart





2.2.7 Nationality

The data are coming from just once hospital in Greece so the expectation is to meet Greek people overwhelmingly.

TABLE 2.2.7

Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	2	,6	,6	,6
	Greek	359	99,4	99,4	100,0
	Total	361	100,0	100,0	

There are no missing values and the expectation was right, since 359 patients have Greek nationality out of 361 (Table 2.2.7). As a conclusion there is no reason to think that this variable could influence the results. That is the reason that the graphs are not given here and this variable was excluded from the tests (and so did the others like it).

2.2.8 Satisfied from Work

There are many times that problems in their working environment tent to follow people at home and in all aspects of their lives. So it is reasonable to expect that the less satisfied they are from their work (or working environment) the more it can affect their psychology and causing them any kind of problems. People in this survey were asked if their satisfied from their work with five possible answers from “None” to “Extremely”.

TABLE 2.2.8

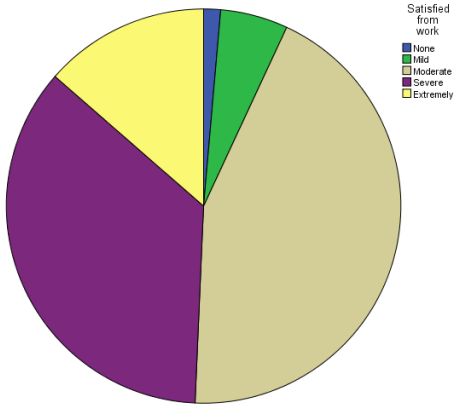
Satisfied from work

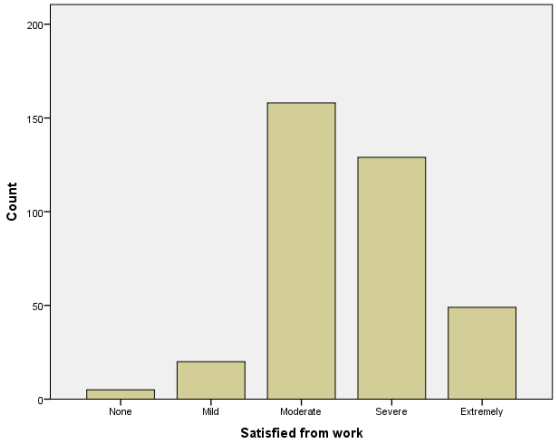
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	5	1,4	1,4	1,4
	Mild	20	5,5	5,5	6,9
	Moderate	158	43,8	43,8	50,7
	Severe	129	35,7	35,7	86,4
	Extremely	49	13,6	13,6	100,0
	Total	361	100,0	100,0	

Most people, actually almost half of them (43.8%), think things could be both better and worse and chose to answer “Moderate”. Many people think that their working environment is pretty good and answered “Severe” in a proportion of 35.7%, while the third category (in order of frequencies) think that everything is (almost) perfect and chose “Extremely” (13.6%). There are a few people thinking that things could be really better and

chose to answer “Mild” (6.9%) and even less that declared to have no satisfaction from their work (1.4%) (Table 2.2.8).

CHART 2.2.8.1	CHART 2.2.8.2
Pie chart	Bar chart





2.2.9 Years of service

This could be a useful factor since more years of service could lead to better standing in someone’s job and better working conditions. It could also mean stability in both psychological and economical status.

TABLE 2.2.9

Descriptives

			Statistic	Std. Error
Years of service	Mean		14,63	,429
	95% Confidence Interval for Mean	Lower Bound	13,79	
		Upper Bound	15,48	
	5% Trimmed Mean		14,56	
	Median		15,00	
	Variance		66,588	
	Std. Deviation		8,160	
	Minimum		1	
	Maximum		34	
	Range		33	
	Interquartile Range		15	
	Skewness		,014	,128
	Kurtosis		-1,118	,256

There are no missing values in this variable as well. Mean is 14.63 ± 0.429 years of service, so the expectation is that most of the patients have many years of service. Median is 15 and variance is 66.588, so standard deviation is 8.16. Minimum value is 1, so every single patient has worked for some period of his/her life, and maximum value is 34 (Table 2.2.9).

CHART 2.2.9.1

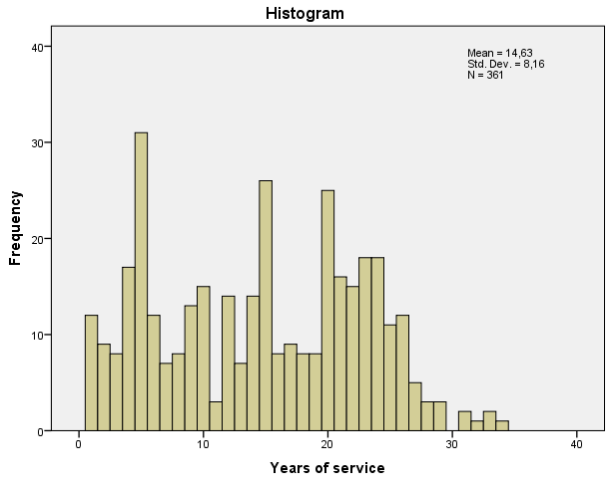
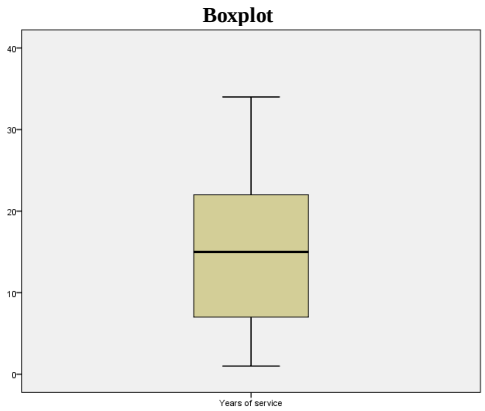


CHART 2.2.9.2



2.2.10 Smoking

Smoking affects people's health and both smoking and health could affect someone's psychology. So it is pretty common for subjects in these surveys to be asked if they are smokers and smoking to be a factor that affects the results.

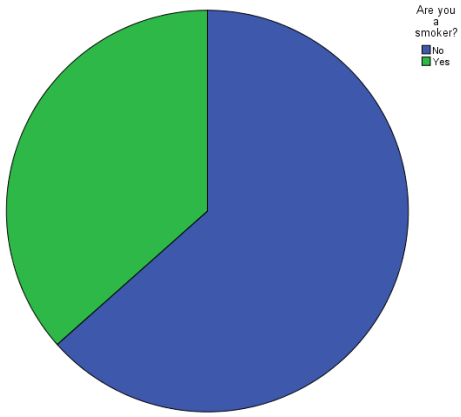
TABLE 2.2.10

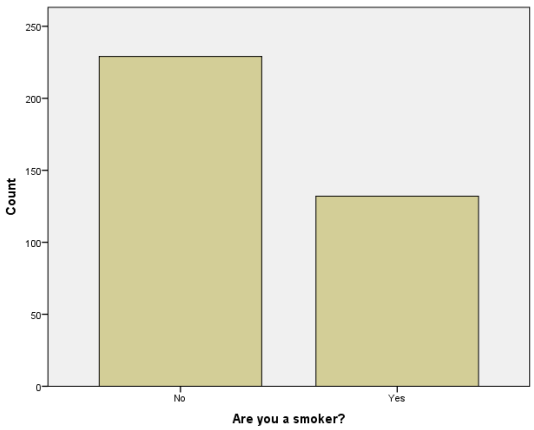
Are you a smoker?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	229	63,4	63,4	63,4
	Yes	132	36,6	36,6	100,0
	Total	361	100,0	100,0	

Out of 361 subjects, 132 are smokers (36.6%) and 229 are not (Table 2.2.10). Although one category is almost twice the other, there are enough subjects in both categories to believe that if smoking is a factor that affects the result it is going to be detected.

CHART 2.2.10.1	CHART 2.2.10.2
Pie chart	Bar chart





2.2.11.1 Working out

Working out is a way to maintain body and psychology to pretty good levels so it could affect the results. People were asked at first if they are working out and subsequently those who do were asked how much in a given week.

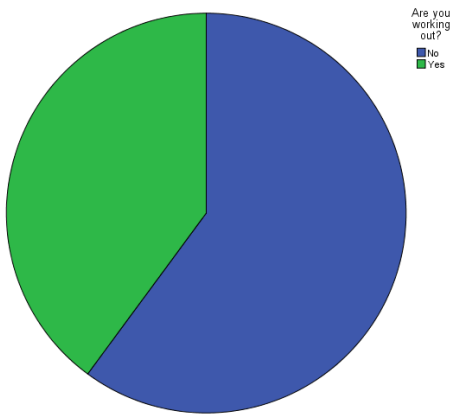
TABLE 2.2.11.1

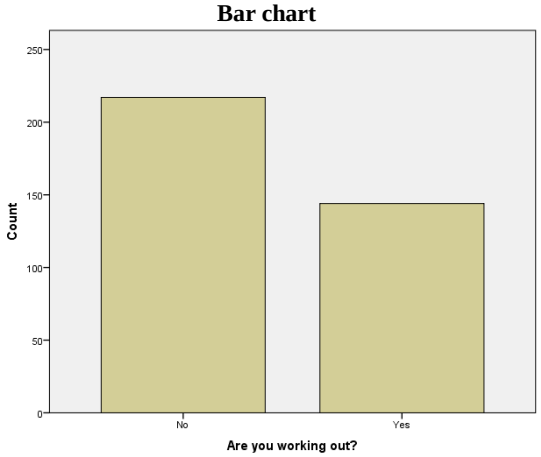
Are you working out?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	217	60,1	60,1	60,1
	Yes	144	39,9	39,9	100,0
	Total	361	100,0	100,0	

Most people are not working out in a proportion of 60.1% (Table 2.2.11.1), while for the rest 39.9% it is going to be examined below the amount of exercise they do every week.

CHART 2.2.11.1.1	CHART 2.2.11.1.2
Pie chart	Bar chart





2.2.11.2 If working out, how much?

Now it is going to be examined how much does this 39.9% of the sample work out every week.

TABLE 2.2.11.2

If yes, how much?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	217	60,1	60,1	60,1
	Once a week	8	2,2	2,2	62,3
	Twice a week	50	13,9	13,9	76,2
	Three times a week	59	16,3	16,3	92,5
	Four times a week	9	2,5	2,5	95,0
	Five times a week	16	4,4	4,4	99,4
	Six times a week	1	,3	,3	99,7
	Seven times a week	1	,3	,3	100,0
	Total	361	100,0	100,0	

First category consists of all the subjects that don't work out, which are already known to be 217 (60.1%). From the other 144 subjects, 8 are working out once a week (2.2%), 50 twice a week (13.9%), 59 three times a week (16.3%), 9 four times a week (2.5%), 16 five times a week (4.4%), and only 1 both six and seven times a week (0.3% each) (Table 2.2..11.2). The category "Never" is here so that all percentages correspond to the sample's total population. If this was missing then all percentages would correspond to only those who work out, which means only to 39.9% of the sample (and obviously all percentages would be bigger).

CHART 2.2.11.2.1

Pie chart

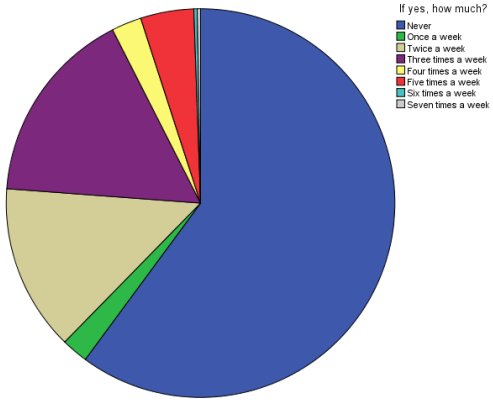
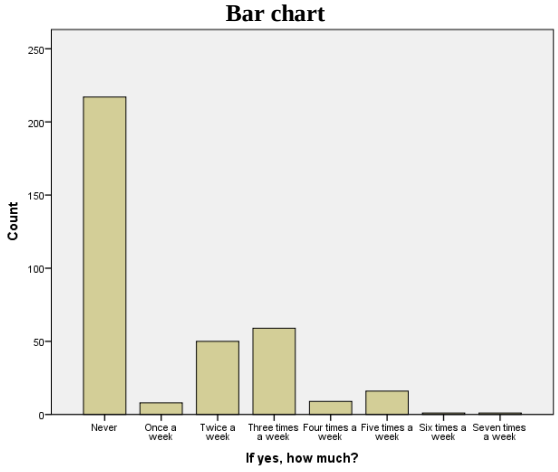


CHART 2.2.11.2.2

Bar chart



2.2.12 Drugs

Both mind and body, and most of all someone's health, could be seriously damaged from drugs. These chemical substances can lead to addiction, which means that someone doesn't have the full control of his/her body after a while. In addition drugs lead to problems in concentration and clarity even in small doses. In this study subjects were asked if they are drug users in present or if they were in the past.

2.2.12.1 Using drugs today

TABLE 2.2.12.1

Using drugs today

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	344	95,3	95,3	95,3
	Yes	17	4,7	4,7	100,0
	Total	361	100,0	100,0	

As indicated by Table 2.2.12.1, 344 out of 361 patients are not using drugs today (95.3%).

CHART 2.2.12.1.1

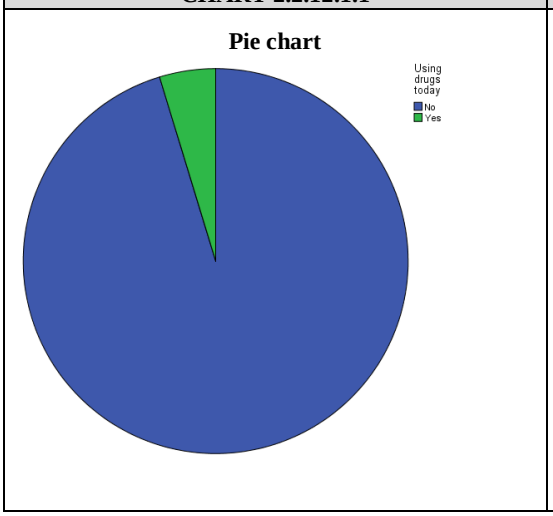
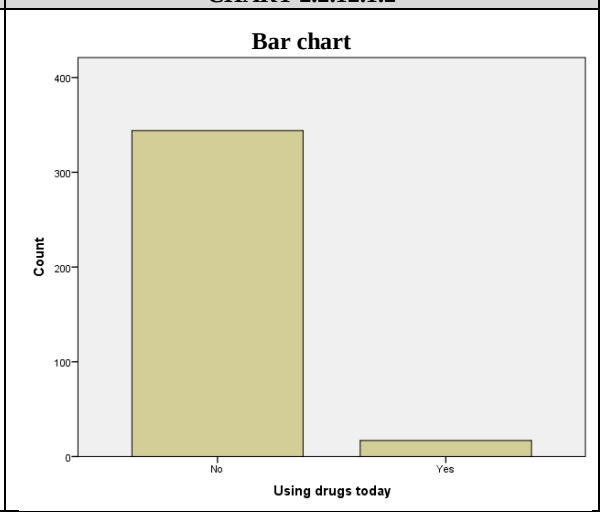


CHART 2.2.12.1.2



2.2.12.2 Drug user in the past

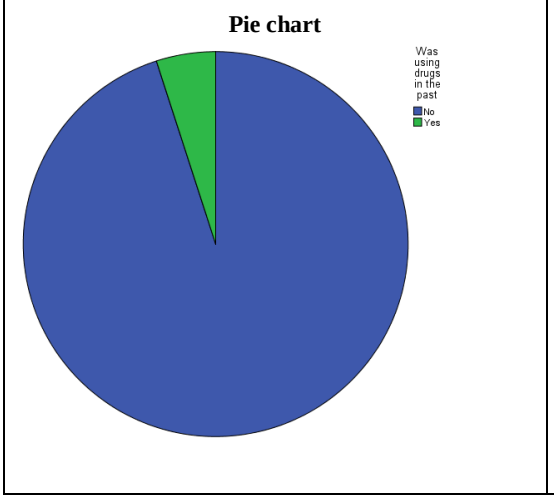
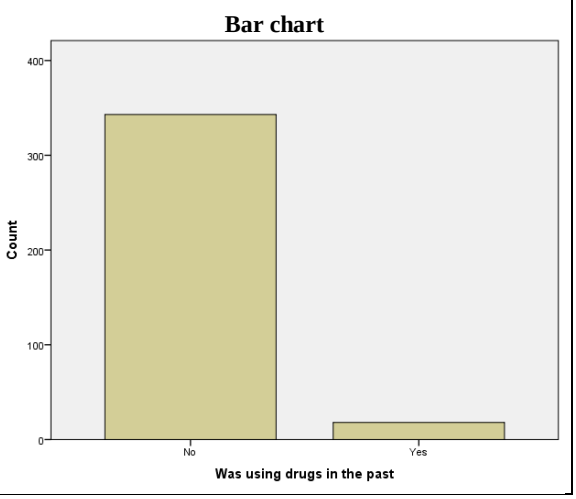
TABLE 2.2.12.2

Drug user in the past

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	343	95,0	95,0	95,0

	Yes	18	5,0	5,0	100,0
	Total	361	100,0	100,0	

As indicated by Table 2.2.12.2, 343 out of 361 patients were not drug users in the past (95%).

CHART 2.2.12.2.1	CHART 2.2.12.2.2
	

2.2.13 Profession

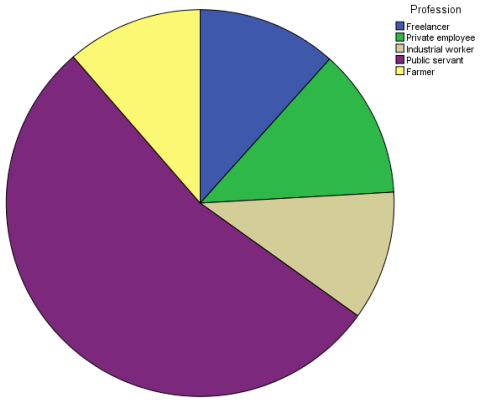
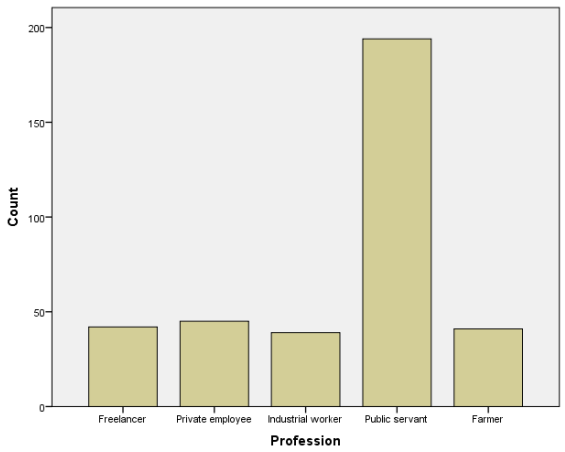
Sometimes the nature and pressure of someone's work affects anxiety levels in general. So it can affect both psychology and quality of life. That's the reason subjects in this study were asked to state their profession.

TABLE 2.2.13

Profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freelancer	42	11,6	11,6	11,6
	Private employee	45	12,5	12,5	24,1
	Industrial worker	39	10,8	10,8	34,9
	Public servant	194	53,7	53,7	88,6
	Farmer	41	11,4	11,4	100,0
	Total	361	100,0	100,0	

As indicated by Table 2.2.13, it is pretty clear that there is one category standing out. This is the one of the public servants, which gathers slightly more than a half of the subjects (currently 53.7%). The other four categories gather similar percentages, ranging between 10.8% and 12.5% (or between 39 and 45 subjects respectively).

CHART 2.2.13.1	CHART 2.2.13.2
Pie chart 	**Bar chart** 

CHAPTER 3: ANALYSIS OF QUESTIONNAIRES ABOUT ANXIETY

3.1 Normality tests

The first theme of this thesis is to examine questionnaires' total scores with demographics as factors. It will be examined if the averages are the same in every level of the demographics. But as shown before some of the data, such as age, are continuous variables with many values so different procedures are going to be followed for them.

At first it needs to be examined if the data are coming from a normal distribution (or at least one that looks like normal). The results are about to follow are coming from questionnaires' total scores in Kolmogorov-Smirnov test, which is used to test the null hypothesis:

H_0: questionnaire's total scores follow normal distribution.

3.1.1 Hamilton Rating Scale for Depression

TABLE 3.1.1

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
Hamilton Rating Scale for Depression Total Scores	,089	361	,000

a. Lilliefors Significance Correction

P-value is <0.00, so there is strong evidence that the null hypothesis should be rejected (Table 3.1.1). So the data do not follow a normal (or one that looks like normal) distribution for Hamilton Rating Scale for Depression.

Some graphs are given below in order to understand the data a bit better.

CHART 3.1.1.1

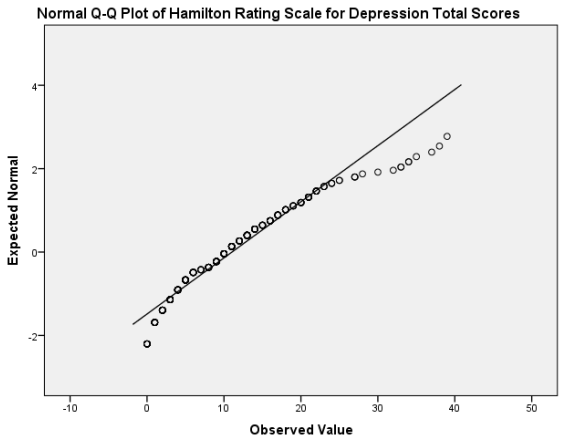
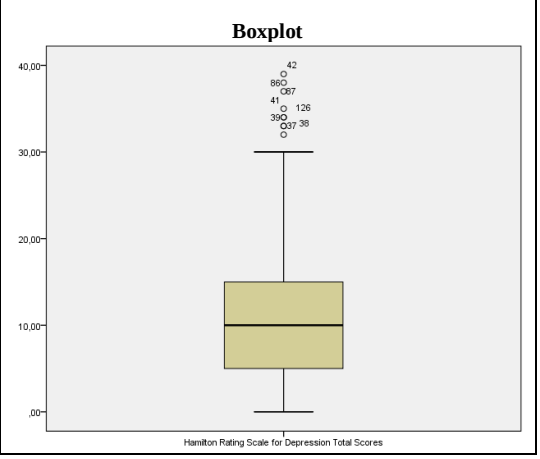


CHART 3.1.1.2



3.1.2 The State-Trait Anxiety Inventory (STAI)

TABLE 3.1.2

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
STAI Total Scores	,074	361	,000

a. Lilliefors Significance Correction

P-value is <0.001, so there is strong evidence that the null hypothesis, H_0: *STAI's total scores follow normal distribution*, should be rejected (Table 3.1.2). So the data do not follow a normal (or one that looks like normal) distribution for STAI.

The graphs are given below.

CHART 3.1.2.1

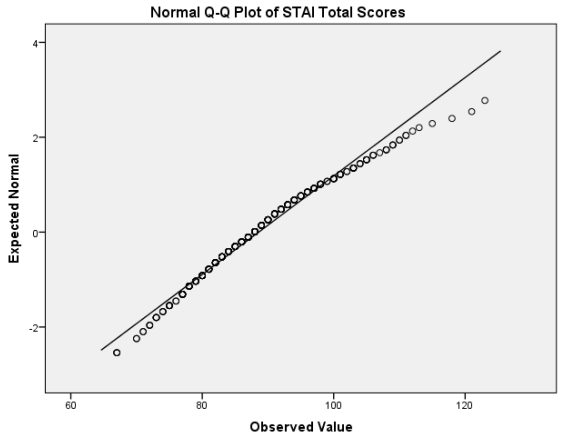
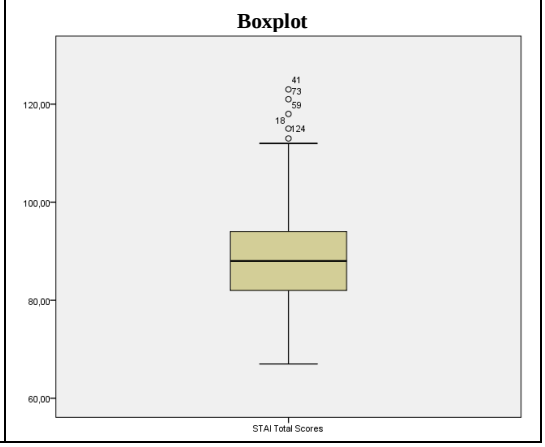


CHART 3.1.2.2



3.1.3 Ways of Coping (WAYS)

3.1.3.1 Scale 1

TABLE 3.1.3.1

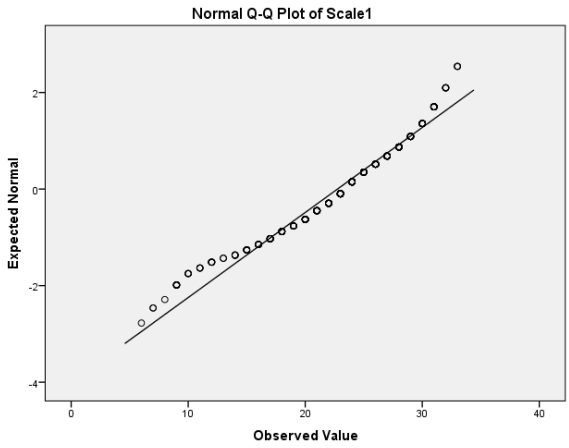
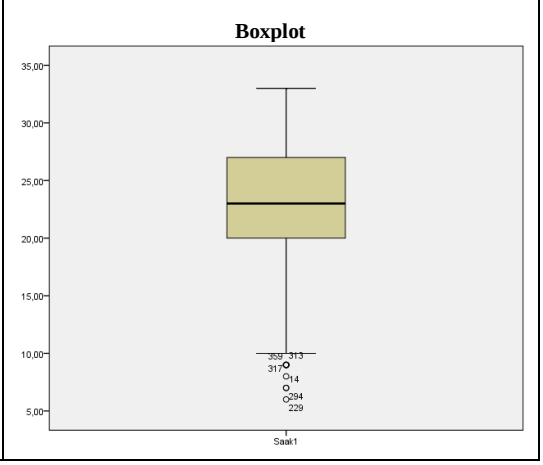
Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
Scale1	,107	361	,000

a. Lilliefors Significance Correction

P-value is <0.001, so there is strong evidence that the null hypothesis H_0: *WAYS's Scale 1 total scores follow normal distribution* should be rejected (Table 3.1.3.1). So the data do not follow a normal (or one that looks like normal) distribution for Scale 1 of WAYS.

The graphs are given below.

CHART 3.1.3.1.1	CHART 3.1.3.1.2
	

3.1.3.2 Scale 2

TABLE 3.1.3.2

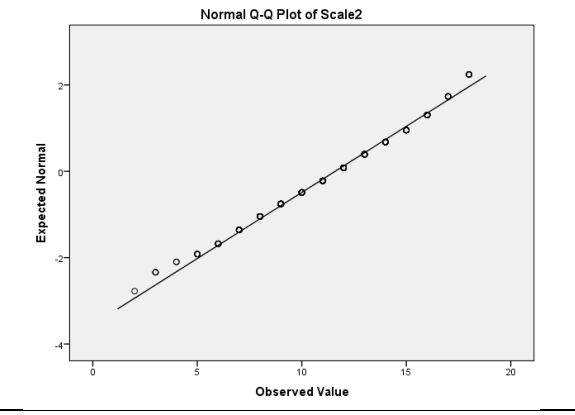
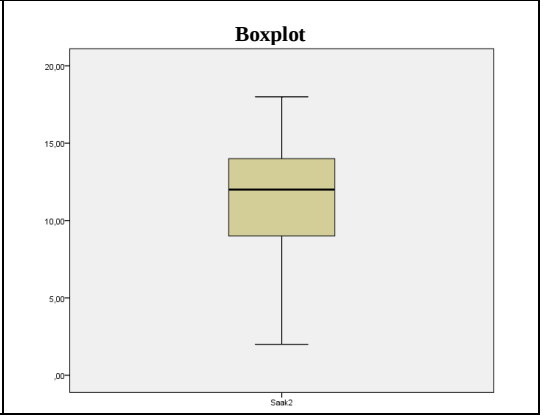
Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Scale2	,078	361	,000

a. Lilliefors Significance Correction

P-value is <0.001, so there is strong evidence that the null hypothesis H_0*: WAYS's Scale 2 total scores follow normal distribution* should be rejected (Table 3.1.3.2). So the data do not follow a normal (or one that looks like normal) distribution for Scale 2 of WAYS.

The graphs are given below.

CHART 3.1.3.2.1	CHART 3.1.3.2.2
	

3.1.3.3 Scale 3

TABLE 3.1.3.3			
Tests of Normality			
	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Scale3	,063	361	,001
a. Lilliefors Significance Correction			

P-value is 0.001, so there is suffiecient evidence to reject the hypothesis *H_0: WAYS's Scale 3 total scores follow normal distribution* (Table 3.1.3.3). So the data do not follow a normal (or one that looks like normal) distribution for Scale 3 of WAYS.

The graphs are given below.

CHART 3.1.3.3.1

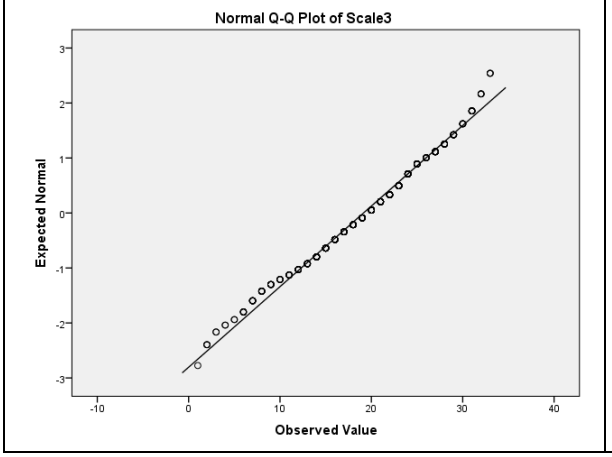
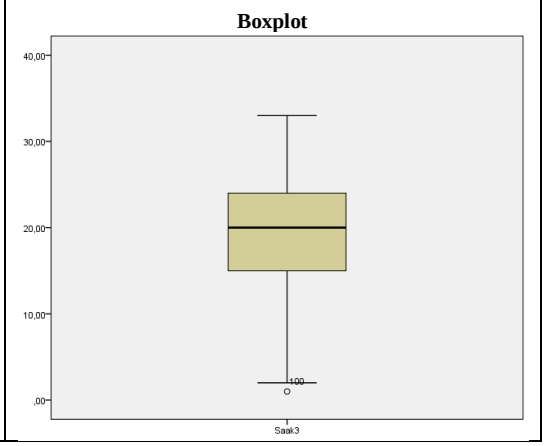


CHART 3.1.3.3.2

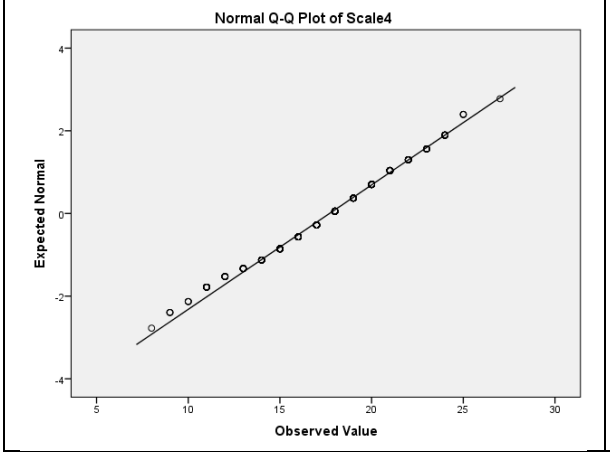
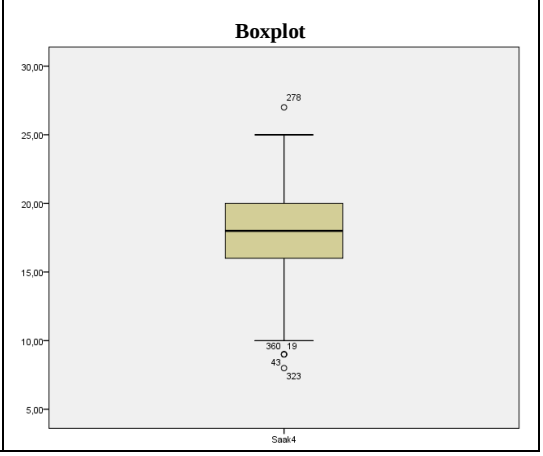


3.1.3.4 Scale 4

TABLE 3.1.3.4			
Tests of Normality			
	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Scale4	,087	361	,000
a. Lilliefors Significance Correction			

P-value is <0.001, so there are strong evidence that the null hypothesis *H_0: WAYS's Scale 4 total scores follow normal distribution* should be rejected (Table 3.1.3.4). So the data do not follow a normal (or one that looks like normal) distribution for Scale 4 of WAYS.

The graphs are given below.

CHART 3.1.3.4.1	CHART 3.1.3.4.2
	

3.1.3.5 Scale 5

TABLE 3.1.3.5

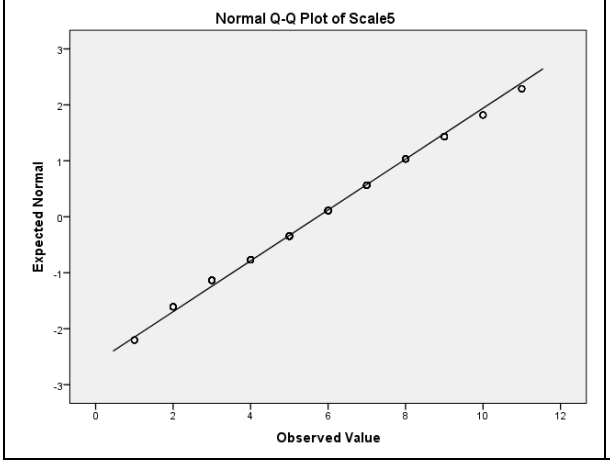
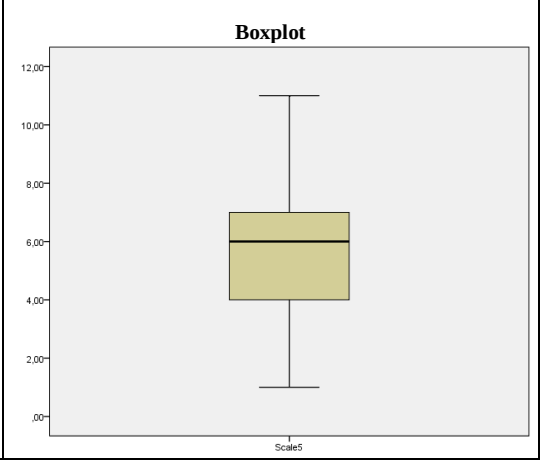
Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Scale5	,104	361	,000

a. Lilliefors Significance Correction

P-value is <0.001, so there is strong evidence that the null hypothesis H_0: *WAYS's Scale 5 total scores follow normal distribution* should be rejected (Table 3.1.3.5). So the data do not follow a normal (or one that looks like normal) distribution for Scale 5 of WAYS.

The graphs are given below.

CHART 3.1.3.5.1	CHART 3.1.3.5.2
	

Data from all of the five scales of WAYS do not follow a normal (or one that looks like normal) distribution, so the hypothesis that data for WAYS follow a normal distribution is rejected.

3.2 Demographics Analysis

Tables with mean ranks are not given due to space saving. For the same reason the tables are not given in non-significant results, but only the p-values.

3.2.1 Gender

3.2.1.1 Hamilton Rating Scale for Depression

The first demographic factor that will be examined is gender. From previous research and bibliography the expectation is that means should not be different between men and women.

As already shown there are 300 men and 61 women in the sample. Mean for men is 182.93 and for women 171.51. Their absolute difference is different from zero, but the purpose is to examine if those numbers are statistically different or not. The values that are about to follow are based on the Mann-Whitney test, which is used to test the null hypothesis H_0:$\mu_{men}=\mu_{women}$ vs H_1:$\mu_{men}\neq\mu_{women}$.

Mann-Whitney U value is 8571 and p-value is 0.435>0.05, so there is not sufficient evidence to reject the null hypothesis. So means for men and women are going to assumed as statistically equal, which is exactly what was shown in previous papers.

3.2.1.2 The State-Trait Anxiety Inventory (STAI)

In STAI their absolute difference is larger, but it must be tested if it is statistically significant.

Mann-Whitney U value is 7979 and p-value is 0.115>0.05 so there is not sufficient evidence to reject the null hypothesis H_0:$\mu_{men}=\mu_{women}$. So means for men and women are going to be assumed statistically equal in STAI, which was exactly the expectation from previous papers.

3.2.1.3 Ways of Coping (WAYS)

In this questionnaire a different procedure must be followed. The test is going to be applied in every scale of WAYS.

3.2.1.3.1 Scale 1

Mann-Whitney U value is 8736 and p-value is 0.577>0.05, so there is not sufficient evidence to reject the null hypothesis H_0:μ_{men}=μ_{women}. So means for men and women are going to be assumed statistically equal in Scale 1 of WAYS.

3.2.1.3.2 Scale 2

TABLE 3.2.1.3.2

Test Statistics[a]

	Scale2
Mann-Whitney U	7313,500
Wilcoxon W	9204,500
Z	-2,482
Asymp. Sig. (2-tailed)	,013

a. Grouping Variable: Gender

Mann-Whitney U value is 7313.5 and p-value is 0.013<0.05, so there is sufficient evidence to reject the null hypothesis H_0:μ_{men}=μ_{women} (Table 3.2.1.3.2) So means for men and women are going to be assumed to be statistically different in Scale 2 of WAYS.

3.2.1.3.3 Scale 3

TABLE 3.2.1.3.3

Test Statistics[a]

	Scale3
Mann-Whitney U	7441,000
Wilcoxon W	9332,000
Z	-2,303
Asymp. Sig. (2-tailed)	,021

a. Grouping Variable: Gender

Mann-Whitney U value is 7441 and p-value is 0.021<0.05, so there is sufficient evidence to reject the null hypothesis H_0:μ_{men}=μ_{women} (Table 3.2.1.3.3). So the means for men and women are going to be assumed statistically different in Scale 3 of WAYS.

3.2.1.3.4 Scale 4

Mann-Whitney U value is 8007 and p-value is 0.122>0.05, so there is not sufficient evidence to reject the null hypothesis H_0:μ_{men}=μ_{women}. So means for men and women are going to be assumed statistically equal in Scale 4 of WAYS.

3.2.1.3.5 Scale 5

Mann-Whitney U value is 9103.5 and p-value is 0.95>0.05, so there is not sufficient evidence to reject the null hypothesis H_0:μ_{men}=μ_{women}. So means for men and women are going to be assumed statistically equal in Scale 5 of WAYS.

So means for men and women are going to be assumed statistically equal in scales 1, 4 and 5 and statistically different in scales 2 and 3.

3.2.2 Age

When dealing with continuous variables like age a different procedure must be followed since there are no levels to compare. A proper correlation coefficient is going to be computed to examine if the continuous variable is correlated with questionnaires' total results. As said before the data don't seem to approximate a normal distribution, so the appropriate correlation coeffient is Spearman's ρ with null hypothesis $H_0 : \rho_s = 0$ vs $H_1 : \rho_s \neq 0$.

3.2.2.1 Hamilton Rating Scale for Depression

Spearman's ρ value is 0.036 and p-value is 0.49>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and Hamilton's Rating Scale for Depression total scores are not correlated with age.

3.2.2.2 The State-Trait Anxiety Inventory (STAI)

Spearman's ρ value is 0.077 and p-value is 0.143>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with age.

3.2.2.3 Ways of Coping (WAYS)

3.2.2.3.1 Scale 1

Spearman's ρ value is 0.012 and p-value is 0.54>0.05, so there is not sufficient evidence to reject the null hypothesis. This means Spearman's correlation coefficient is assumed to be statistically equal to 0 and Scale 1 of WAYS is not correlated with age.

3.2.2.3.2 Scale 2

Spearman's ρ value is -0.48 and p-value is 0.359>0.05, so there is not sufficient evidence to reject the null hypothesis. This means Spearman's correlation coefficient is assumed to be statistically equal to 0 and Scale 2 of WAYS is not correlated with age.

3.2.2.3.3 Scale 3

Spearman's ρ value is 0.74 and p-value is 0.161>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and Scale 3 of WAYS is not correlated with age.

3.2.2.3.4 Scale 4

Spearman's ρ value is 0.56 and p-value is 0.288>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and Scale 1 of WAYS is not correlated with age.

3.2.2.3.5 Scale 5

Spearman's ρ value is -0.46 and p-value is 0.383>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and Scale 1 of WAYS is not correlated with age.

So total results about WAYS indicate that Spearman's correlation coefficient is assumed to be statistically equal to 0 for all the scales.

3.2.3 Marital Status

3.2.3.1 Hamilton Rating Scale for Depression

There is one level that stands out, the widowed. It is clear that this can be happening because of the very small sample of this category (only 2 subjects belong there). "Divorced" is also a level with not many subjects, having only 10, and it's mean it's the lowest. Nevertheless these differences can be no statistically significant.

Chi-square value is 2.161, with 3 degrees of freedom and p-value is 0.54>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$. So all levels are assumed to be are statistically equal and marital status doesn't affect the results of Hamilton Rating Scale for Depression questionnaire.

3.2.3.2 The State-Trait Anxiety Inventory (STAI)

In STAI three levels seem to be very close but there is one standing out, the divorced with 198.35.

Chi-square value is 0.305, with 3 degrees of freedom and p-value is 0.959>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$. This means that all levels are assumed to be statistically equal and marital status doesn't affect the results of STAI questionnaire.

3.2.3.3 Ways of Coping (WAYS)

3.2.3.3.1 Scale 1

TABLE 3.2.3.3.1

Test Statistics[a,b]

	Scale1
Chi-Square	14,130
Df	3
Asymp. Sig.	,003

a. Kruskal Wallis Test

b. Grouping Variable: Marital Stasus

Chi-square value is 14.13, with 3 degrees of freedom and p-value is 0.003<0.05. So there is sufficient evidence to reject the null l hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are going to be assumed not to be statistically equal in Scale 1 of WAYS.

CHART 3.2.3.3.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale1 is the same across categories of Marital Stasus.	Independent-Samples Kruskal-Wallis Test	,003	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.3.3.1.2

Pairwise Comparisons of Marital Stasus

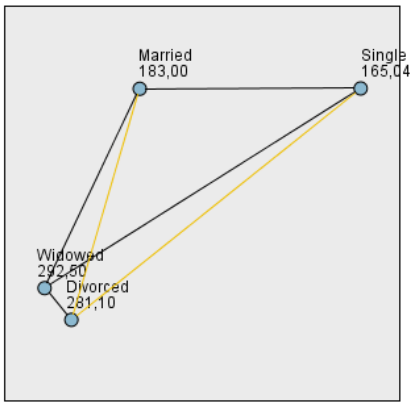


CHART 3.2.3.3.1.3

Each node shows the sample average rank of Marital Stasus.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Single-Married	-17,963	12,092	-1,485	,137	,825
Single-Divorced	-116,063	34,442	-3,370	,001	,005
Single-Widowed	-127,463	74,336	-1,715	,086	,518
Married-Divorced	-98,100	33,611	-2,919	,004	,021
Married-Widowed	-109,500	73,955	-1,481	,139	,832
Divorced-Widowed	-11,400	80,680	-,141	,888	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The differences that lead to the rejection of the null hypothesis are between "Divorced" and "Single" (with p-value 0.005<0.05) and "Divorced" and "Married" (with p-value 0.021<0.05). However it should be reminded that category "Divorced" contains only 10 subjects.

3.2.3.3.2 Scale 2

Chi-square value is 0.636, with 3 degrees of freedom and p-value is 0.888>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are going to assumed to be statistically equal in Scale 2 of WAYS.

3.2.3.3.3 Scale 3

Chi-square value is 2.807, with 3 degrees of freedom and p-value is 0.422>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are going to be assumed to be statistically equal in Scale 3 of WAYS.

3.2.3.3.4 Scale 4

Chi-square value is 0.84, with 3 degrees of freedom and p-value is 0.84>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 4 of WAYS.

3.2.3.3.5 Scale 5

Chi-square value is 2.453, with 3 degrees of freedom and p-value is 0.484>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 5 of WAYS.

So total results for WAYS are that all levels are assumed to be statistically equal in scales 2, 3, 4 and 5, but they are not in scale 1. In this scale there are differences between category "Divorced" and both the categories "Single" and "Married".

3.2.4 Number of children

3.2.4.1 Hamilton Rating Scale for Depression

Chi-square value is 1.111, with 4 degrees of freedom and p-value is 0.892>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Hamilton Rating Scale for Depression questionnaire.

3.2.4.2 The State-Trait Anxiety Inventory (STAI)

Chi-square value is 6.243, with 3 degrees of freedom and p-value is 0.182>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in STAI questionnaire.

3.2.4.3 Ways of Coping (WAYS)

3.2.4.3.1 Scale 1

Chi-square value is 6.777, with 3 degrees of freedom and p-value is 0.079>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 1 of WAYS.

3.2.4.3.2 Scale 2

Chi-square value is 2.723, with 3 degrees of freedom and p-value is 0.436>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 2 of WAYS.

3.2.4.3.3 Scale 3

Chi-square value is 6.343, with 3 degrees of freedom and p-value is 0.096>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 3 of WAYS.

3.2.4.3.4 Scale 4

Chi-square value is 3.575, with 3 degrees of freedom and p-value is 0.311>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 4 of WAYS.

3.2.4.3.5 Scale 5

Chi-square value is 6.544, with 3 degrees of freedom and p-value is 0.088>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in Scale 5 of WAYS.

So total results indicate that number of children does not affect any scale of WAYS.

3.2.5 Degree

3.2.5.1 Hamilton Rating Scale for Depression

TABLE 3.2.5.1

Test Statistics[a]

	Hamilton Rating Scale for Depression Total Scores
Mann-Whitney U	4249,500
Wilcoxon W	4810,500
Z	-2,037
Asymp. Sig. (2-tailed)	,042

a. Grouping Variable: Degree

Mann-Whitney U value is 4249.5 and p-value is 0.042<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.5.1). So if someone has a degree or not affects the results in Hamilton Rating Scale for Depression and the mean of those who have at least one in questionnaire's total scores is statistically different from the one of those that do not have.

3.2.5.2 The State-Trait Anxiety Inventory (STAI)

Mann-Whitney U value is 4791.5 and p-value is 0.277>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a degree or not does not affect the results in STAI and the mean of those who have in questionnaire's total scores is statistically equal to the one of those who have not.

3.2.5.3 Ways of Coping (WAYS)

3.2.5.3.1 Scale 1

TABLE 3.2.5.3.1

Test Statistics[a]

	Scale1
Mann-Whitney U	3900,000
Wilcoxon W	57856,000
Z	-2,651
Asymp. Sig. (2-tailed)	,008

a. Grouping Variable: Degree

Mann-Whitney U value is 3900 and p-value is 0.008<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.5.3.1). So if someone has a degree or not affects the results in Scale 1 of WAYS.

3.2.5.3.2 Scale 2

Mann-Whitney U value is 4565 and p-value is 0.137>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a degree or not doesn't affect the results in Scale 2 of WAYS.

3.2.5.3.3 Scale 3

TABLE 3.2.5.3.3	
Test Statistics[a]	
	Scale3
Mann-Whitney U	3809,000
Wilcoxon W	4370,000
Z	-2,808
Asymp. Sig. (2-tailed)	,005
a. Grouping Variable: Degree	

Mann-Whitney U value is 3809 and p-value is 0.005<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.5.3.3). So if someone has a degree or not affects the results in Scale 3 of WAYS.

3.2.5.3.4 Scale 4

Mann-Whitney U value is 5254.5 and p-value is 0.782>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a degree or not doesn't affect the results in Scale 4 of WAYS.

3.2.5.3.5 Scale 5

Mann-Whitney U value is 4402.5 and p-value is 0.074>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a degree or not doesn't affect the results in Scale 4 of WAYS.

So total results suggest that if someone has a degree or not affects WAYS, with means in scales 1 and 3 being statistically different for the two categories. In the other scales the means are statistically equal.

3.2.6 Second Degree

3.2.6.1 Hamilton Rating Scale for Depression

Mann-Whitney U value is 2378 and p-value is 0.1>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affects the results in Hamilton Rating Scale for Depression and the mean of those

who have in questionnaire's total scores is statistically equal to the one of those who don't have.

3.2.6.2 The State-Trait Anxiety Inventory (STAI)

Mann-Whitney U value is 2867.5 and p-value is 0.611>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affects the results in STAI and the mean of those who have in questionnaire's total scores is statistically equal to the one of those who have not.

3.2.6.3 Ways of Coping (WAYS)

3.2.6.3.1 Scale 1

TABLE 3.2.6.3.1

Test Statistics[a]

	Scale1
Mann-Whitney U	2184,000
Wilcoxon W	61180,000
Z	-2,096
Asymp. Sig. (2-tailed)	,036

a. Grouping Variable: Second degree

Mann-Whitney U value is 2184 and p-value is 0.036<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.6.3.1). So if someone has a second degree or not affects the results in Scale 1 of WAYS.

3.2.6.3.2 Scale 2

Mann-Whitney U value is 2355 and p-value is 0.089>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affect the results in Scale 2 of WAYS.

3.2.6.3.3 Scale 3

TABLE 3.2.6.3.3

Test Statistics[a]

	Scale3
Mann-Whitney U	1967,000
Wilcoxon W	2138,000

Z	-2,598
Asymp. Sig. (2-tailed)	,009
a. Grouping Variable: Second degree	

Mann-Whitney U value is 1967 and p-value is 0.009<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.6.3.3). So if someone has a second degree or not affects the results in Scale 3 of WAYS.

3.2.6.3.4 Scale 4

Mann-Whitney U value is 3058 and p-value is 0.947>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affect the results in Scale 4 of WAYS.

3.2.6.3.5 Scale 5

Mann-Whitney U value is 2635 and p-value is 0.291>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affect the results in Scale 5 of WAYS.

So total results in WAYS indicate that means between those who have a second degree and those who don't are statistically equal in scales 2, 4 and 5 and statistically different in scales 1 and 3.

3.2.7 Satisfied from work

3.2.7.1 Hamilton Rating Scale for Depression

In this case there is a level that stands out with the highest mean and one that does with the lowest. The first one is "None" and has only 5 subjects, so it might not affect the results so much, but the second one, "Extremely", consists of 49 subjects. Something to notice is that the two levels containing the most subjects, "Moderate" and "Severe", have a big difference in absolute numbers. So there might a statistical differences between them.

TABLE 3.2.7.1	
Test Statistics[a,b]	
	Hamilton Rating Scale for Depression Total Scores
Chi-Square	15,703

Df	4
Asymp. Sig.	,003
a. Kruskal Wallis Test	
b. Grouping Variable: Satisfied from work	

Chi-square value is 15.703, with 4 degrees of freedom and the above reasoning seems to be true since p-value is 0.003< 0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ (Table 3.2.7.1). So satisfaction from work is a factor that affects total scores in Hamilton Rating Scale for Depression and means of the levels of this demographic are assumed to be statistically different.

A different process is going to be followed to examine the differences between the levels and the reason that leads to the rejection of the null hypothesis.

CHART 3.2.7.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Hamilton Rating Scale for Depression Total Scores is the same across categories of Satisfied from work.	Independent-Samples Kruskal-Wallis Test	,003	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.7.1.2

Pairwise Comparisons of Satisfied from work

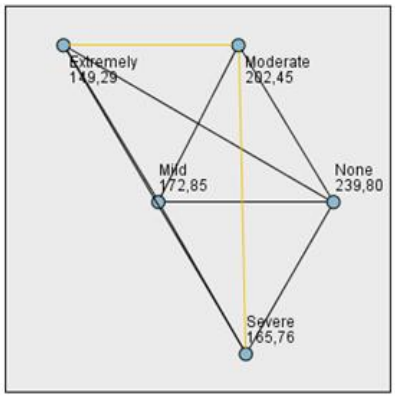


CHART 3.2.7.1.3

Each node shows the sample average rank of Satisfied from work.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Extremely-Severe	16,478	17,487	,942	,346	1,000
Extremely-Mild	23,564	27,651	,852	,394	1,000
Extremely-Moderate	53,160	17,039	3,120	,002	,018
Extremely-None	90,514	48,923	1,850	,064	,643
Severe-Mild	7,086	25,043	,283	,777	1,000
Severe-Moderate	36,683	12,366	2,967	,003	,030
Severe-None	74,036	47,497	1,559	,119	1,000
Mild-Moderate	-29,596	24,732	-1,197	,231	1,000
Mild-None	66,950	52,104	1,285	,199	1,000
Moderate-None	37,354	47,335	,789	,430	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The differences that lead to the rejection of the null hypothesis are between "Moderate" and "Extremely" (with p-value 0.018<0.05) and "Moderate" and "Severe" (with p-value 0.03<0.05) (Chart 3.2.7.1.3) .

3.2.7.2 The State-Trait Anxiety Inventory (STAI)

The only level that seems to stand out is "None" with 228.2, but it consists of only 5 subjects so this might not affect the results.

The reasoning was right as chi-square value is 3.411 with 4 degrees of freedom and p-value is 0.492>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in this demographic in STAI.

3.2.7.3 Ways of Coping (WAYS)

3.2.7.3.1 Scale 1

There is one category standing out as the one with the largest mean (240.19), "Extremely". So it is possible to detect differences in the test and reject the null hypothesis.

TABLE 3.2.7.3.1

Test Statistics[a,b]

	Scale1
Chi-Square	24,976
Df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Satisfied from work

The above reasoning was right as chi-square value is 24.976 with 4 degrees of freedom and p-value is <0.001 (Table 3.2.7.3.1). This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically different in this demographic in Scale 1 of WAYS.

CHART 3.2.7.3.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale1 is the same across categories of Satisfied from work.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.7.3.1.2

Pairwise Comparisons of Satisfied from work

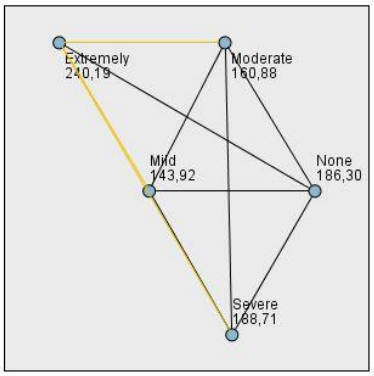


CHART 3.2.7.3.1.3

Each node shows the sample average rank of Satisfied from work.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Mild-Moderate	-16,952	24,721	-,686	,493	1,000
Mild-None	42,375	52,079	,814	,416	1,000
Mild-Severe	-44,780	25,031	-1,789	,074	,736
Mild-Extremely	-96,269	27,638	-3,483	,000	,005
Moderate-None	25,423	47,312	,537	,591	1,000
Moderate-Severe	-27,829	12,360	-2,252	,024	,243
Moderate-Extremely	-79,317	17,031	-4,657	,000	,000
None-Severe	-2,405	47,475	-,051	,960	1,000
None-Extremely	-53,894	48,900	-1,102	,270	1,000
Severe-Extremely	-51,488	17,479	-2,946	,003	,032

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

Statistically significant differences are between "Extremely" and all of "Mild" (p-value 0.005<0.05), "Moderate" (p-value<0.001) and "Severe" (p-value 0.032<0.05) levels (Chart 3.2.7.3.1.3). Although "Mild" consists of only 20 subjects, all the other categories consist of enough subjects to support the reasoning.

3.2.7.3.2 Scale 2

There is not a category particularly standing out in this case so there might not be any statistical significant differences.

The above reasoning was right as chi-square value is 3.114 with 4 degrees of freedom and p-value is 0.539>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in this demographic in Scale 2 of WAYS.

3.2.7.3.3 Scale 3

There is a category with larger mean than the rest, "None", but it consists of only 5 subjects. So the test might not detect a statistically significant difference between the levels.

Chi-square value is 6.82 with 4 degrees of freedom and p-value is 0.146>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in this demographic in Scale 3 of WAYS.

3.2.7.3.4 Scale 4

There is one category with larger mean, "Mild", however the differences might not be significant as that level consists of only 20 subjects.

Chi-square value is 4.658 with 4 degrees of freedom and p-value is 0.324>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in this demographic in Scale 4 of WAYS.

3.2.7.3.5 Scale 5

There is one category with larger mean than all the others but it doesn't really seem to stand out, so there might not be any statistically significant differences between those levels.

The above reasoning was right as chi-square value is 0.533 with 4 degrees of freedom and p-value is 0.97>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in this demographic in Scale 5 of WAYS.

So total results in WAYS indicate that all levels are statistically equal in scales 2, 3, 4, and 5, but not in scale 1. In this scale there are statistically significant differences between "Extremely" and all of "Mild", "Moderate" and "Severe" levels.

3.2.8 Years of Service

The different procedure which was used before in variable "Age", Spearman's ρ with null hypothesis $H_0 : \rho_s = 0$ vs $H_1 : \rho_s \neq 0$, is about to be followed in "Years of service" which is also a continuous variable.

3.2.8.1 Hamilton Rating Scale for Depression

Spearman's ρ value is 0.05 and p-value is 0.918>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and Hamilton' Rating Scale for Depression total scores are not correlated with years of service.

3.2.8.2 The State-Trait Anxiety Inventory (STAI)

Spearman's ρ value is 0.08 and p-value is 0.129>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with years of service.

3.2.8.3 Ways of Coping (WAYS)

3.2.8.3.1 Scale 1

Spearman's ρ value is 0.091 and p-value is 0.083>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with years of service.

3.2.8.3.2 Scale 2

Spearman's ρ value is -0.081 and p-value is 0.126>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with years of service.

3.2.8.3.3 Scale 3

Spearman's ρ value is 0.052 and p-value is 0.325>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with years of service.

3.2.8.3.4 Scale 4

Spearman's ρ value is 0.063 and p-value is 0.235>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with years of service.

3.2.8.3.5 Scale 5

Spearman's ρ value is -0.032 and p-value is 0.539>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI's total scores are not correlated with years of service.

So total results indicate that years of service do not affect WAYS, since Spearman's correlation coefficients are assumed to be statistically equal to 0 in every one of its scales.

3.2.9 Smoking

3.2.9.1 Hamilton Rating Scale for Depression

Mann-Whitney U value is 14587.5 and p-value is 0.581>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone is a smoker or not does not affect the results in Hamilton's Rating Scale for Depression total scores.

3.2.9.2 The State-Trait Anxiety Inventory (STAI)

Mann-Whitney U value is 14773 and p-value is 0.721>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is a smoker or not does not affect the results in STAI's total scores.

3.2.9.3 Ways of Coping (WAYS)

3.2.9.3.1 Scale 1

Mann-Whitney U value is 13839 and p-value is 0.181>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is a smoker or not does not affect the results in Scale 1 of WAYS.

3.2.9.3.2 Scale 2

Mann-Whitney U value is 14709 and p-value is 0.67>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is a smoker or not does not affect the results in Scale 2 of WAYS.

3.2.9.3.3 Scale 3

Mann-Whitney U value is 14808.5 and p-value is 0.749>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is a smoker or not does not affect the results in Scale 3 of WAYS.

3.2.9.3.4 Scale 4

Mann-Whitney U value is 14781.5 and p-value is 0.726>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is a smoker or not does not affect the results in Scale 4 of WAYS.

3.2.9.3.5 Scale 5

Mann-Whitney U value is 14198.5 and p-value is 0.333>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is a smoker or not does not affect the results in Scale 5 of WAYS.

So total results indicate that if someone is a smoker or not doesn't affect WAYS, since means between the two categories are statistically equal in each one of the questionnaire's scales.

3.2.10.1 Working out

3.2.10.1.1 Hamilton Rating Scale for Depression

There is a difference of 23.49 in absolute values. Whether this is statistically significant on not is going to be examined, but the expectation is those that work out to be more healthy than those who don't and thereafter be in better psychological situation. So this difference is suspected to be significant.

TABLE 3.2.10.1.1

Test Statistics[a]

	Hamilton Rating Scale for Depression Total Scores
Mann-Whitney U	13590,500
Wilcoxon W	24030,500
Z	-2,097
Asymp. Sig. (2-tailed)	,036

a. Grouping Variable: Are you working out?

Mann-Whitney U value is 13590.5 and p-value is 0.036<0.05 so the above reasoning was right and there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.10.1.1). So whether someone works out or not affects the results in Hamilton's Rating Scale for Depression total scores and those who do have different mean than those who don't in that questionnaire.

3.2.10.1.2 The State-Trait Anxiety Inventory (STAI)

Although there is already shown that there are cases in which questionnaires' total scores have differences between them, here applies exactly the same as Hamilton's Rating Scale for Depression; there is a difference of 33.25 and the expectation is to be statistically significant.

TABLE 3.2.10.1.2

Test Statistics[a]

	STAI Total Scores
Mann-Whitney U	12745,500
Wilcoxon W	23185,500
Z	-2,967
Asymp. Sig. (2-tailed)	,003

a. Grouping Variable: Are you working out?

Mann-Whitney U value is 12745.5 and p-value is 0.003<0.05 so the above reasoning was right and there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.10.1.2). So whether someone works out or not affects the results in STAI's total scores and those who do have different mean than those who don't in that questionnaire.

3.2.10.1.3 Ways of Coping (WAYS)

3.2.10.1.3.1 Scale 1

Mann-Whitney U value is 14180 and p-value is 0.136>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So whether someone works out or not doesn't affect the results in Scale 1 of WAYS.

3.2.10.1.3.2 Scale 2

Mann-Whitney U value is 14860.5 and p-value is 0.43>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So whether someone works out or not doesn't affect the results in Scale 2 of WAYS.

3.2.10.1.3.3 Scale 3

TABLE 3.2.10.1.3.3	
Test Statistics[a]	
	Scale3
Mann-Whitney U	12519,500
Wilcoxon W	22959,500
Z	-3,201
Asymp. Sig. (2-tailed)	,001
a. Grouping Variable: Are you working out?	

Mann-Whitney U value is 12519.5 and p-value is 0.001<0.05 so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.10.1.3.3). So whether someone works out or not affects the results in Scale 3 of WAYS.

3.2.10.1.3.4 Scale 4

TABLE 3.2.10.1.3.4	
Test Statistics[a]	
	Scale4
Mann-Whitney U	13718,000
Wilcoxon W	24158,000
Z	-1,973
Asymp. Sig. (2-tailed)	,049
a. Grouping Variable: Are you working out?	

Mann-Whitney U value is 13718 and p-value is 0.049<0.05 so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.10.1.3.4). So whether someone works out or not affects the results in Scale 4 of WAYS.

3.2.10.1.3.5 Scale 5

TABLE 3.2.10.1.3.5	
Test Statistics[a]	
	Scale5
Mann-Whitney U	13497,500
Wilcoxon W	37150,500
Z	-2,213
Asymp. Sig. (2-tailed)	,027
a. Grouping Variable: Are you working out?	

Mann-Whitney U value is 13497.5 and p-value is 0.027<0.05 so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 3.2.10.1.3.5). So whether someone works out or not affects the results in Scale 5 of WAYS.

So total results in WAYS indicate that there are statistically significant differences in the means of those who work out and those who don't in scales 3, 4 and 5. On the other hand means of those two categories are statistically equal in scales 1 and 2.

3.2.10.2 If working out, how much?

As shown before, in this question there is also a level "Never" for those that don't work out so that the percentages can be considered equivalent to the entire sample. So the expectation here is that levels are going to be statistical different but this is not sure because level "Yes" from the previous variable "Working out" is split in seven different levels and all these might not have the same differences with level "None" as before.

3.2.10.2.1 Hamilton Rating Scale for Depression

There is not only level "Never" that stands out but there is also level "Twice a week" and has even bigger mean than "Never" (194.98). There is a level that stands out by having the smallest mean with 91, the "Seven times a week". But this one consists of only one subject so it probably won't affect the results.

The expectation did not met as chi-square value is 10.589 with 7 degrees of freedom and p-value is 0.158>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ and all levels are assumed to be statistically equal in Hamilton's Rating Scale for Depression total scores. This is happening because those seven levels that consisted level "Yes" before have smaller differences from level "Never". So when all together have statistical significant difference from that level, when seen as different levels they are considered to be statistically equal with "Never".

3.2.10.2.2 The State-Trait Anxiety Inventory (STAI)

This is not the same situation here as in Hamilton's Rating Scale for Depression since the one category standing out along with "Never" (194.26), "Six times a week" (260), consists of only one subject. So it might not affect the results so much even now that it is the highest by far. So in this case the difference between "Never" and the other levels might be statistically significant. Something that might affect the tests is the mean of level "Seven times a week" (9), which is the lowest by far. In fact it is so low that it probably is an incorrect observation.

TABLE 3.2.10.2.2

Test Statistics[a,b]

	STAI Total Scores
Chi-Square	14,086
df	7
Asymp. Sig.	,050

a. Kruskal Wallis Test

b. Grouping Variable: If yes, how much?

The above reasoning was right as chi-square value is 14.086 with 7 degrees of freedom and p-value is 0.05 (Table 3.2.10.2.2). This significance value is equal to the limit that has been set, so it is going to be examined where does this come from with a different method.

CHART 3.2.10.2.2.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of STAI Total Scores is the same across categories of If yes, how much?.	Independent-Samples Kruskal-Wallis Test	,050	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.10.2.2.2

Pairwise Comparisons of If yes, how much?

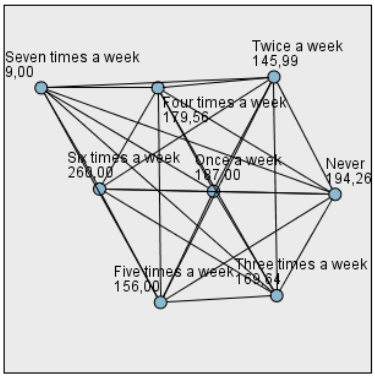


CHART 3.2.10.2.2.3

Each node shows the sample average rank of If yes, how much?.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Seven times a week-Twice a week	136,990	105,328	1,301	,193	1,000
Seven times a week-Five times a week	147,000	107,500	1,367	,171	1,000
Seven times a week-Three times a week	160,644	105,170	1,527	,127	1,000
Seven times a week-Four times a week	170,556	109,932	1,551	,121	1,000
Seven times a week-Once a week	178,000	110,616	1,609	,108	1,000
Seven times a week-Never	185,265	104,530	1,772	,076	1,000
Seven times a week-Six times a week	251,000	147,489	1,702	,089	1,000
Twice a week-Five times a week	-10,010	29,955	-,334	,738	1,000
Twice a week-Three times a week	-23,654	20,047	-1,180	,238	1,000
Twice a week-Four times a week	-33,566	37,763	-,889	,374	1,000
Twice a week-Once a week	41,010	39,713	1,033	,302	1,000
Twice a week-Never	48,275	16,360	2,951	,003	,089
Twice a week-Six times a week	-114,010	105,328	-1,082	,279	1,000
Five times a week-Three times a week	13,644	29,396	,464	,643	1,000
Five times a week-Four times a week	23,556	43,454	,542	,588	1,000
Five times a week-Once a week	31,000	45,159	,686	,492	1,000
Five times a week-Never	38,265	27,017	1,416	,157	1,000
Five times a week-Six times a week	-104,000	107,500	-,967	,333	1,000
Three times a week-Four times a week	-9,911	37,321	-,266	,791	1,000
Three times a week-Once a week	17,356	39,293	,442	,659	1,000
Three times a week-Never	24,621	15,312	1,608	,108	1,000
Three times a week-Six times a week	-90,366	105,170	-,859	,390	1,000
Four times a week-Once a week	7,444	50,676	,147	,883	1,000
Four times a week-Never	14,709	35,477	,415	,678	1,000
Four times a week-Six times a week	-80,444	109,932	-,732	,464	1,000
Once a week-Never	7,265	37,546	,193	,847	1,000
Once a week-Six times a week	-73,000	110,616	-,660	,509	1,000
Never-Six times a week	-65,735	104,530	-,629	,529	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

There is not a difference to be considered as statistically significant (all p-values>0.05), but the one that probably affects total results is between "Never" and "Twice a week" (p-value=0.089) (Chart 3.2.10.2.2.3). These levels both consist of many subjects so by this and the fact that p-value in Kruskal-Wallis test is marginal (=0.05) there would be a preference for this variable to be examined again with another sample (ideally with many subjects in each level). For now this difference is going to be considered big enough for further testing.

3.2.10.2.3 Ways of Coping (WAYS)

3.2.10.2.3.1 Scale 1

There is a category standing out by having the smallest mean by far, "Seven times a week" with (45.5). However only one subject belongs in this category so it might not be statistically significant.

TABLE 3.2.10.2.3.1

Test Statistics[a,b]

	Scale1
Chi-Square	21,815
df	7
Asymp. Sig.	,003

a. Kruskal Wallis Test

b. Grouping Variable: If yes, how much?

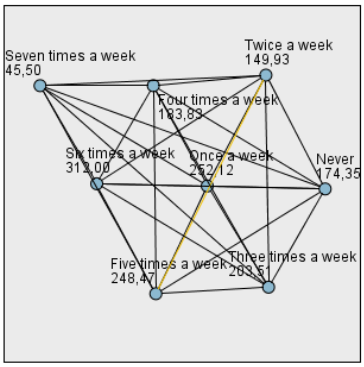
Chi-square value is 21.815 with 7 degrees of freedom and p-value is 0.003<005, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ (Table 3.2.10.2.3.1). So all levels are not assumed to be equal in Scale 1 of WAYS and it is going to be examined which of them have different means.

CHART 3.2.10.2.3.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale1 is the same across categories of If yes, how much?.	Independent-Samples Kruskal-Wallis Test	,003	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.10.2.3.1.2	CHART 3.2.10.2.3.1.3
Pairwise Comparisons of If yes, how much? 	Each node shows the sample average rank of If yes, how much?.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Seven times a week-Twice a week	104,430	105,194	,993	,321	1,000
Seven times a week-Never	128,846	104,398	1,234	,217	1,000
Seven times a week-Four times a week	138,333	109,792	1,260	,208	1,000
Seven times a week-Three times a week	158,008	105,037	1,504	,133	1,000
Seven times a week-Five times a week	202,969	107,364	1,890	,059	1,000
Seven times a week-Once a week	206,625	110,476	1,870	,061	1,000
Seven times a week-Six times a week	266,500	147,302	1,809	,070	1,000
Twice a week-Never	24,416	16,339	1,494	,135	1,000
Twice a week-Four times a week	-33,903	37,715	-,899	,369	1,000
Twice a week-Three times a week	-53,578	20,021	-2,676	,007	,209
Twice a week-Five times a week	-98,539	29,917	-3,294	,001	,028
Twice a week-Once a week	102,195	39,662	2,577	,010	,279
Twice a week-Six times a week	-162,070	105,194	-1,541	,123	1,000
Never-Four times a week	-9,488	35,432	-,268	,789	1,000
Never-Three times a week	-29,163	15,293	-1,907	,057	1,000
Never-Five times a week	-74,123	26,982	-2,747	,006	,168
Never-Once a week	-77,779	37,498	-2,074	,038	1,000
Never-Six times a week	-137,654	104,398	-1,319	,187	1,000
Four times a week-Three times a week	19,675	37,273	,528	,598	1,000
Four times a week-Five times a week	-64,635	43,399	-1,489	,136	1,000
Four times a week-Once a week	68,292	50,612	1,349	,177	1,000
Four times a week-Six times a week	-128,167	109,792	-1,167	,243	1,000
Three times a week-Five times a week	-44,960	29,359	-1,531	,126	1,000
Three times a week-Once a week	48,617	39,243	1,239	,215	1,000
Three times a week-Six times a week	-108,492	105,037	-1,033	,302	1,000
Five times a week-Once a week	3,656	45,102	,081	,935	1,000
Five times a week-Six times a week	-63,531	107,364	-,592	,554	1,000
Once a week-Six times a week	-59,875	110,476	-,542	,588	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The difference that is statistically significant is the one between "Twice a week" and "Five times a week" (p-value 0.028<0.05) (Chart 3.2.10.2.3.1.3).

3.2.10.2.3.2 Scale 2

In this scale there is also a category standing out by having the smallest mean by far (just like before), "seven times a week" with 17. However only one subject belongs in this category so it might not be statistically significant.

Chi-square value is 10.685 with 7 degrees of freedom and p-value is 0.153>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$. So all levels are assumed to be equal in Scale 2 of WAYS.

3.2.10.2.3.3 Scale 3

Just like the previous scales there is "Seven times a week" category standing out with a mean around 3.

TABLE 3.2.10.2.3.3

Test Statistics[a,b]

	Scale3
Chi-Square	14,092
df	7
Asymp. Sig.	,050

a. Kruskal Wallis Test

b. Grouping Variable: If yes, how much?

Chi-square value is 14.092 with 7 degrees of freedom and p-value is 0.05 (Table 3.2.10.2.3.3). This significance value is equal to the limit that was set so it is going to be examined where does this value come from.

CHART 3.2.10.2.3.3.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale3 is the same across categories of If yes, how much?.	Independent-Samples Kruskal-Wallis Test	,050	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.10.2.3.3.2

Pairwise Comparisons of If yes, how much?

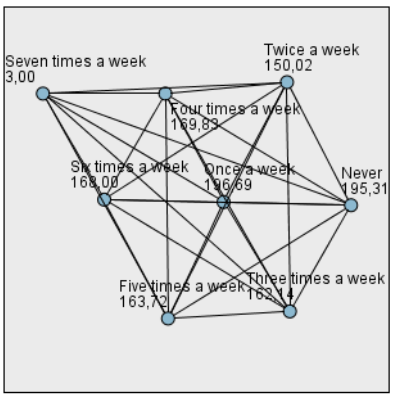


CHART 3.2.10.2.3.3.3

Each node shows the sample average rank of If yes, how much?.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Seven times a week-Twice a week	147,020	105,275	1,397	,163	1,000
Seven times a week-Three times a week	159,136	105,117	1,514	,130	1,000
Seven times a week-Five times a week	160,719	107,446	1,496	,135	1,000
Seven times a week-Six times a week	165,000	147,414	1,119	,263	1,000
Seven times a week-Four times a week	166,833	109,876	1,518	,129	1,000
Seven times a week-Never	192,306	104,478	1,841	,066	1,000
Seven times a week-Once a week	193,688	110,561	1,752	,080	1,000
Twice a week-Three times a week	-12,116	20,037	-,605	,545	1,000
Twice a week-Five times a week	-13,699	29,940	-,458	,647	1,000
Twice a week-Six times a week	-17,980	105,275	-,171	,864	1,000
Twice a week-Four times a week	-19,813	37,744	-,525	,600	1,000
Twice a week-Never	45,286	16,352	2,770	,006	,157
Twice a week-Once a week	46,668	39,693	1,176	,240	1,000
Three times a week-Five times a week	-1,583	29,381	-,054	,957	1,000
Three times a week-Six times a week	-5,864	105,117	-,056	,956	1,000
Three times a week-Four times a week	-7,698	37,302	-,206	,837	1,000
Three times a week-Never	33,171	15,305	2,167	,030	,846
Three times a week-Once a week	34,552	39,273	,880	,379	1,000
Five times a week-Six times a week	-4,281	107,446	-,040	,968	1,000
Five times a week-Four times a week	6,115	43,432	,141	,888	1,000
Five times a week-Never	31,588	27,003	1,170	,242	1,000
Five times a week-Once a week	32,969	45,136	,730	,465	1,000
Six times a week-Four times a week	1,833	109,876	,017	,987	1,000
Six times a week-Never	27,306	104,478	,261	,794	1,000
Six times a week-Once a week	28,688	110,561	,259	,795	1,000
Four times a week-Never	25,473	35,459	,718	,473	1,000
Four times a week-Once a week	26,854	50,650	,530	,596	1,000
Never-Once a week	-1,381	37,527	-,037	,971	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

There are no differences to be considered as statistically significant here (all p-values>0.05) but there might be a difference between "Never" and "Twice a week" (p-value=0.157) that affects test's results (Chart 3.2.10.2.3.3.3).

3.2.10.2.3.4 Scale 4

There are two categories standing out here, "Seven times a week" with the smallest mean (13.5) and "Six times a week" with the largest (308). Both consist of only one subject so these differences might not be statistically significant.

Chi-square value is 13.345 with 7 degrees of freedom and p-value is 0.064>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ and all levels are assumed to be equal in Scale 4 of WAYS.

3.2.10.2.3.5 Scale 5

In scale 5 there is "Seven times a week" category standing out with the smallest mean by far (46.5).

Chi-square value is 13.06 with 7 degrees of freedom and p-value is 0.071>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ and all levels are assumed to be statistically equal in Scale 5 of WAYS.

So total results suggest that there the means of all levels are statistically equal in scales 3, 4 and 5 in WAYS. On the other hand there is a statistically significant difference in scale 1, between "Twice a week" and "Five times a week". In scale 2 p-value is equal to the critical value that is set but in the analysis there were no statistically significant differences between the levels.

3.2.11.1 Using drugs today

3.2.11.1.1 Hamilton Rating Scale for Depression

Mann-Whitney U value is 2380 and p-value is 0.195>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not does not affect the results in Hamilton Rating Scale for Depression and the mean of those who are in questionnaire's total scores is statistically equal with the one of those who are not.

3.2.11.1.2 The State-Trait Anxiety Inventory (STAI)

Mann-Whitney U value is 2845.5 and p-value is 0.852>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not does not affect the results in STAI and the mean of those who are in questionnaire's total scores is statistically equal with the one of those who are not.

3.2.11.1.3 Ways of Coping (WAYS)

3.2.11.1.3.1 Scale 1

Mann-Whitney U value is 2801 and p-value is 0.769>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not doesn't affect the results in Scale 1 of WAYS.

3.2.11.1.3.2 Scale 2

Mann-Whitney U value is 2729 and p-value is 0.641>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not doesn't affect the results in Scale 2 of WAYS.

3.2.11.1.3.3 Scale 3

Mann-Whitney U value is 2155 and p-value is 0.067>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not doesn't affect the results in Scale 3 of WAYS.

3.2.11.1.3.4 Scale 4

Mann-Whitney U value is 2782 and p-value is 0.734>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not doesn't affect the results in Scale 4 of WAYS.

3.2.11.1.3.5 Scale 5

Mann-Whitney U value is 2714.5 and p-value is 0.614>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone is using drugs or not doesn't affect the results in Scale 5 of WAYS.

So total results suggest that whether someone is using drugs or not does not affect WAYS, since means between the two categories are statistically equal in every scale.

3.2.11.2 Drug user in the past

3.2.11.2.1 Hamilton Rating Scale for Depression

Mann-Whitney U value is 2465.5 and p-value is 0.15>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in Hamilton's Rating Scale for Depression total scores.

3.2.11.2.2 The State-Trait Anxiety Inventory (STAI)

Mann-Whitney U value is 2881.5 and p-value is 0.634>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in STAI's total scores.

3.2.11.2.3 Ways of Coping (WAYS)

3.2.11.2.3.1 Scale 1

Mann-Whitney U value is 2826.5 and p-value is 0.545>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in Scale 1 of WAYS.

3.2.11.2.3.2 Scale 2

Mann-Whitney U value is 3007 and p-value is 0.852>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in Scale 2 of WAYS.

3.2.11.2.3.3 Scale 3

Mann-Whitney U value is 2630.5 and p-value is 0.29>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in Scale 3 of WAYS.

3.2.11.2.3.4 Scale 4

Mann-Whitney U value is 2981.5 and p-value is 0.806>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in Scale 4 of WAYS.

3.2.11.2.3.5 Scale 5

Mann-Whitney U value is 2856 and p-value is 0.589>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that if someone was a drug user in the past or not doesn't affect the results in Scale 5 of WAYS.

So total results suggest that whether someone was a drug user in the past or not does not affect WAYS, since means between the two categories are statistically equal in every one of the questionnaire's scales.

3.2.12 Profession

3.2.12.1 Hamilton Rating Scale for Depression

TABLE 3.2.12.1.1

Ranks

	Profession	N	Mean Rank
Hamilton Rating Scale for Depression Total Scores	Freelancer	42	286,50
	Private employee	45	156,39
	Industrial worker	39	195,05
	Public servant	194	168,60
	Farmer	41	145,26
	Total	361	

TABLE 3.2.12.1.2

Test Statistics[a,b]

	Hamilton Rating Scale for Depression Total Scores
Chi-Square	53,839
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

The means of levels "Farmer", "Private employee" and "Public Servant" are quite close as indicated by Table 3.2.12.1.1, with mean of level "Industrial worker" being higher

and mean of level “Freelancer” standing out as the highest by far. These differences are quite big in absolute numbers but it is going to be examined if they are statistically different or not.

Chi-square value is 53.839 with 4 degrees of freedom and p-value<0.001 which means that there is strong evidence that the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$ should be rejected (Table 3.2.12.1.2).

Now it is going to be examined which levels are different.

CHART 3.2.12.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Hamilton Rating Scale for Depression Total Scores is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.12.1.2

Pairwise Comparisons of Profession

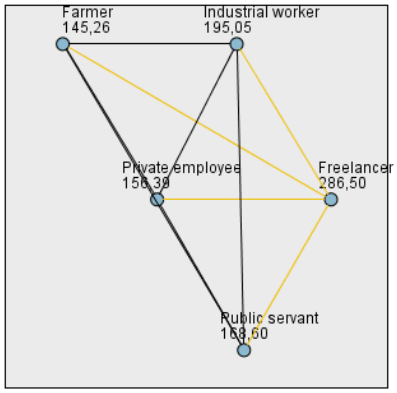


CHART 3.2.12.1.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Private employee	11,133	22,498	,495	,621	1,000
Farmer-Public servant	23,342	17,912	1,303	,193	1,000
Farmer-Industrial worker	49,795	23,309	2,136	,033	,327
Farmer-Freelancer	141,244	22,878	6,174	,000	,000
Private employee-Public servant	-12,209	17,242	-,708	,479	1,000
Private employee-Industrial worker	-38,662	22,798	-1,696	,090	,899
Private employee-Freelancer	130,111	22,358	5,820	,000	,000
Public servant-Industrial worker	26,453	18,287	1,447	,148	1,000
Public servant-Freelancer	117,902	17,735	6,648	,000	,000
Industrial worker-Freelancer	91,449	23,173	3,946	,000	,001

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

It is pretty clear that the level that produces the total difference between them is “Freelancer”. There is strong evidence that it has statistically significant differences from all the other levels (“Farmer”, “Private employee” and “Public servant” with p-value<0.001 and “Industrial worker” with p-value=0.001). So variable “Profession” affects the results in Hamilton’s Rating Scale for Depression total scores because those who belong to level “Freelancer” have different mean from all the others.

3.2.12.2 The State-Trait Anxiety Inventory (STAI)

TABLE 3.2.12.2.1

Ranks

	Profession	N	Mean Rank
STAI Total Scores	Freelancer	42	257,24
	Private employee	45	207,23
	Industrial worker	39	179,00
	Public servant	194	190,53
	Farmer	41	30,91
	Total	361	

TABLE 3.2.12.2.2

Test Statistics[a,b]

	STAI Total Scores
Chi-Square	111,839
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Almost the same applies here as well. There is a level that stands out by having the lowest mean by far, "Farmer" and all the other levels are closer to each other, with "Freelancer" being a bit higher (Table 3.2.12.2.1). It is going to be examined if these differences are statistically significant, although mean of "Farmer" is pretty low and the expectation is to reject the null hypothesis.

The above reasoning was right since chi-square value is 111.839 with 4 degrees of freedom and p-value<0.001 (Table 3.2.12.2.2). This means that there is strong evidence for the rejection of the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

It is going to be examined which levels are different.

CHART 3.2.12.2.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of STAI Total Scores is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.12.2.2

Pairwise Comparisons of Profession

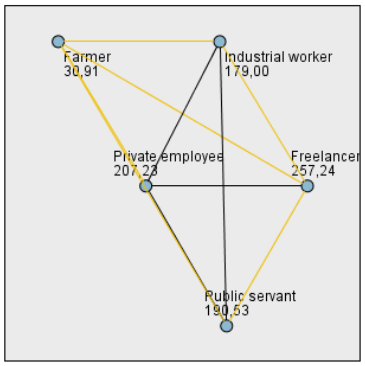


CHART 3.2.12.2.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Industrial worker	148,085	23,327	6,348	,000	,000
Farmer-Public servant	159,616	17,926	8,904	,000	,000
Farmer-Private employee	176,319	22,516	7,831	,000	,000
Farmer-Freelancer	226,323	22,896	9,885	,000	,000
Industrial worker-Public servant	-11,531	18,302	-,630	,529	1,000
Industrial worker-Private employee	28,233	22,816	1,237	,216	1,000
Industrial worker-Freelancer	78,238	23,192	3,374	,001	,007
Public servant-Private employee	16,702	17,256	,968	,333	1,000
Public servant-Freelancer	66,707	17,749	3,758	,000	,002
Private employee-Freelancer	50,005	22,375	2,235	,025	,254

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

As indicated by chart 3.2.12.2.3, “Farmer” has statistically significant difference from any other level as expected (there is strong evidence for that since all p-values<0.001), but there are more differences. “Freelancer” has statistically significant difference from “Industrial worker” (p-value=0.007) and “Private employee” (p-value=0.002). So variable “Profession” affects total results in STAI’s total scores.

3.2.12.3 Ways of Coping (WAYS)

3.2.12.3.1 Scale 1

TABLE 3.2.12.3.1.1

Ranks

	Profession	N	Mean Rank
Scale1	Freelancer	42	154,13
	Private employee	45	216,07
	Industrial worker	39	222,06
	Public servant	194	175,76
	Farmer	41	155,77
	Total	361	

TABLE 3.2.12.3.1.2

Test Statistics[a,b]

	Scale1
Chi-Square	16,854
df	4
Asymp. Sig.	,002

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Chi-square value is 16.854 with 4 degrees of freedom and p-value is 0.002<0.05 (Table 3.2.12.3.1.1). This means that there is sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

It is going to be examined which levels are different.

CHART 3.2.12.3.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale1 is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,002	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.12.3.1.2

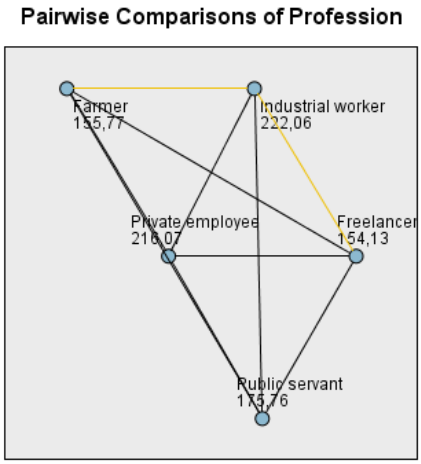


CHART 3.2.12.3.1.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Freelancer-Farmer	-1,637	22,867	-,072	,943	1,000
Freelancer-Public servant	-21,629	17,727	-1,220	,222	1,000
Freelancer-Private employee	-61,936	22,347	-2,772	,006	,056
Freelancer-Industrial worker	-67,933	23,162	-2,933	,003	,034
Farmer-Public servant	19,992	17,903	1,117	,264	1,000
Farmer-Private employee	60,298	22,488	2,681	,007	,073
Farmer-Industrial worker	66,296	23,298	2,846	,004	,044
Public servant-Private employee	40,306	17,234	2,339	,019	,193
Public servant-Industrial worker	46,304	18,278	2,533	,011	,113
Private employee-Industrial worker	-5,997	22,787	-,263	,792	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between "Industrial worker" and both "Freelancer" (p-value 0.034<0.05) and "Farmer" (p-value 0.044<0.05) (Chart 3.2.12.3.1.3).

3.2.12.3.2 Scale 2

TABLE 3.2.12.3.2.1

Ranks

	Profession	N	Mean Rank
Scale2	Freelancer	42	206,56
	Private employee	45	194,53
	Industrial worker	39	212,73
	Public servant	194	172,18
	Farmer	41	151,52
	Total	361	

TABLE 3.2.12.3.2.2

Test Statistics[a,b]

	Scale2
Chi-Square	11,636
df	4
Asymp. Sig.	,020

a. Kruskal Wallis Test
b. Grouping Variable: Profession

Chi-square value is 11.636 with 4 degrees of freedom and p-value is 0.02<0.05 (Table 3.2.12.3.2.2). This means that there is sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

It is going to be examined which levels are different.

CHART 3.2.12.3.2.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale2 is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,020	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.12.3.2.2

Pairwise Comparisons of Profession

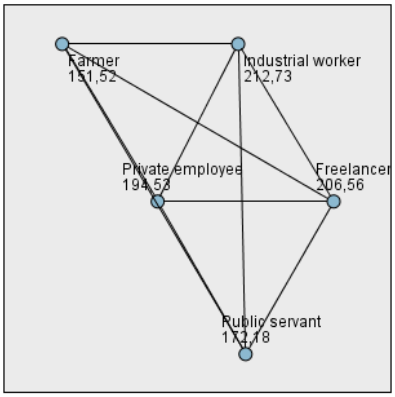


CHART 3.2.12.3.2.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Public servant	20,653	17,863	1,156	,248	1,000
Farmer-Private employee	43,009	22,437	1,917	,055	,552
Farmer-Freelancer	55,035	22,815	2,412	,016	,159
Farmer-Industrial worker	61,206	23,245	2,633	,008	,085
Public servant-Private employee	22,355	17,195	1,300	,194	1,000
Public servant-Freelancer	34,382	17,686	1,944	,052	,519
Public servant-Industrial worker	40,553	18,237	2,224	,026	,262
Private employee-Freelancer	12,026	22,296	,539	,590	1,000
Private employee-Industrial worker	-18,197	22,736	-,800	,423	1,000
Freelancer-Industrial worker	-6,171	23,110	-,267	,789	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

There are no statistically significant differences here (all p-values>0.05), but there might be differences between "Farmer" and both "Industrial worker" (p-value=0.085) and "Freelancer" (p-value=0.159) and between "Public servant" and "Industrial worker" (p-value=0.262) that affect total results (Chart 3.2.12.3.2.3).

3.2.12.3.3 Scale 3

TABLE 3.2.12.3.3.1

Ranks

	Profession	N	Mean Rank
Scale3	Freelancer	42	207,49
	Private employee	45	171,22
	Industrial worker	39	200,60
	Public servant	194	185,67
	Farmer	41	123,85
	Total	361	

TABLE 3.2.12.3.3.2

Test Statistics[a,b]

	Scale3
Chi-Square	17,200
df	4
Asymp. Sig.	,002

a. Kruskal Wallis Test
b. Grouping Variable: Profession

Chi-square value is 17.2 with 4 degrees of freedom and p-value is 0.002<0.05. (Table 3.2.12.3.3.2). This means that there is sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

It is going to be examined which levels are different.

CHART 3.2.12.3.3.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale3 is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,002	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.12.3.3.2

Pairwise Comparisons of Profession

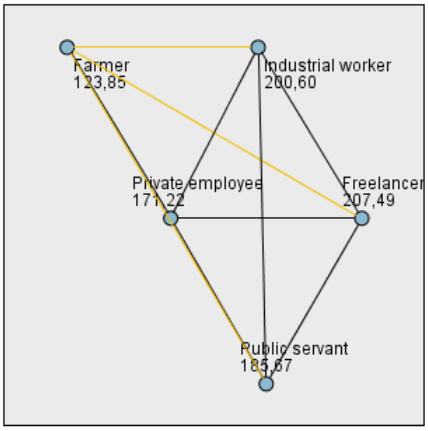


CHART 3.2.12.3.3.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Private employee	47,369	22,505	2,105	,035	,353
Farmer-Public servant	61,816	17,917	3,450	,001	,006
Farmer-Industrial worker	76,749	23,316	3,292	,001	,010
Farmer-Freelancer	83,634	22,885	3,655	,000	,003
Private employee-Public servant	-14,448	17,247	-,838	,402	1,000
Private employee-Industrial worker	-29,380	22,805	-1,288	,198	1,000
Private employee-Freelancer	36,266	22,364	1,622	,105	1,000
Public servant-Industrial worker	14,932	18,292	,816	,414	1,000
Public servant-Freelancer	21,818	17,740	1,230	,219	1,000
Industrial worker-Freelancer	6,886	23,180	,297	,766	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between "Farmer" and all of "Freelancer" (p-value 0.003<0.05), "Public servant" (p-value 0.006<0.05) and "Industrial worker" (p-value 0.01<0.05) (Chart 3.2.12.3.3.3).

3.2.12.3.4 Scale 4

TABLE 3.2.12.3.4.1

Ranks

	Profession	N	Mean Rank
Scale4	Freelancer	42	202,44
	Private employee	45	196,01
	Industrial worker	39	188,91
	Public servant	194	190,93
	Farmer	41	88,06
	Total	361	

TABLE 3.2.12.3.4.2

Test Statistics[a,b]

	Scale4
Chi-Square	37,575
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test
b. Grouping Variable: Profession

Chi-square value is 35.575 with 4 degrees of freedom and p-value is <0.001 (Table 3.2.12.3.4.2). This means that there is strong evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

It is going to be examined which levels are different.

CHART 3.2.12.3.4.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Scale4 is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 3.2.12.3.4.2

Pairwise Comparisons of Profession

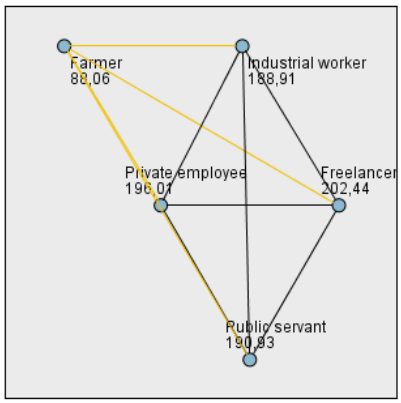


CHART 3.2.12.3.4.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Industrial worker	100,849	23,226	4,342	,000	,000
Farmer-Public servant	102,867	17,848	5,763	,000	,000
Farmer-Private employee	107,950	22,419	4,815	,000	,000
Farmer-Freelancer	114,380	22,797	5,017	,000	,000
Industrial worker-Public servant	-2,018	18,222	-,111	,912	1,000
Industrial worker-Private employee	7,101	22,717	,313	,755	1,000
Industrial worker-Freelancer	13,530	23,091	,586	,558	1,000
Public servant-Private employee	5,083	17,181	,296	,767	1,000
Public servant-Freelancer	11,513	17,672	,651	,515	1,000
Private employee-Freelancer	6,429	22,279	,289	,773	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between "Farmer" and all the other levels. Specifically all p-values are <0.001 so there is strong evidence that farmers have different means from all the other professions (Chart 3.2.12.3.4.3).

3.2.12.3.5 Scale 5

TABLE 3.2.12.3.5.1

Ranks

	Profession	N	Mean Rank
Scale5	Freelancer	42	169,69
	Private employee	45	205,54
	Industrial worker	39	204,77
	Public servant	194	176,68
	Farmer	41	163,46
	Total	361	

TABLE 3.2.12.3.5.2

Test Statistics[a,b]

	Scale5
Chi-Square	6,631
Df	4
Asymp. Sig.	,157

a. Kruskal Wallis Test
b. Grouping Variable: Profession

Chi-square value is 6.631 with 4 degrees of freedom and p-value is 0.157>0.05 (Table 3.2.12.3.5.2). This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$. So the profession does not affect the Scale 5 of WAYS.

So total results for WAYS indicate that means between professionals are statistically equal only in scale 5. In scale 1 there are statistically significant differences between "Industrial worker" and both "Freelancer" and "Farmer". In scale 2 there are no statistically significant differences but the hypothesis that all the levels are statistically equal to each other was rejected. In scale 3 there are statistically significant differences between "Farmer" and all of "Freelancer", "Public servant" and "Industrial worker", and in scale 4 there are statistically significant differences between "Farmer" and all the other levels.

CHAPTER 4: ANALYSIS OF QUESTIONNAIRES ABOUT QUALITY OF LIFE

4.1 Normality tests

4.1.1 General Health Questionnaire (SF) – 12

TABLE 4.1.1

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
GHQ_total_scores	,102	361	,000

a. Lilliefors Significance Correction

P-value is <0.001, so there is strong evidence that the null hypothesis H_0*: the questionnaire's total scores follow normal distribution* should be rejected (Table 4.1.1). So the data do not follow a normal (or one that looks like normal) distribution for General Health Questionnaire (Short-Form)-12.

Some graphs are given below in order to understand the data a bit better.

CHART 4.1.1.1

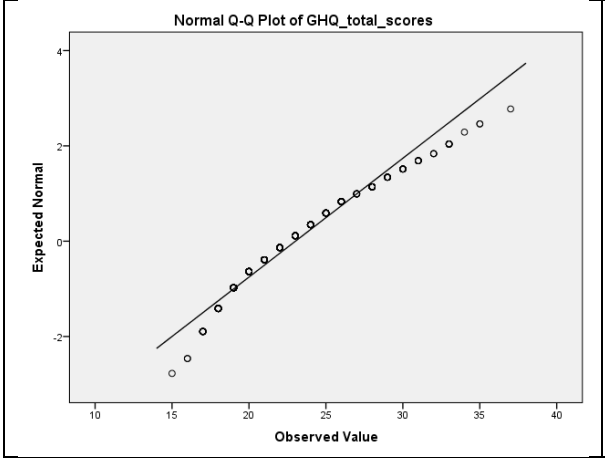
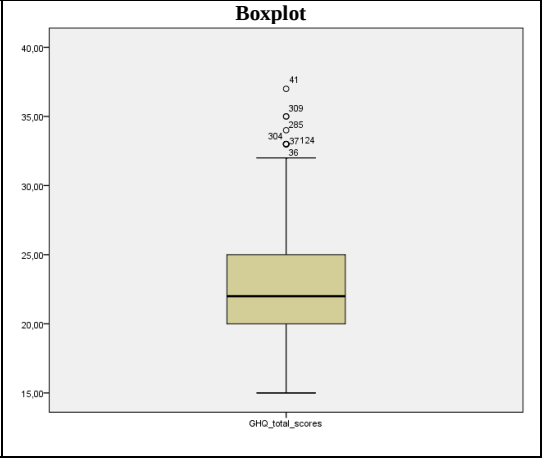


CHART 4.1.1.2



4.1.2 EQ-5D-5L

TABLE 4.1.2

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
EQ-5D-5L total scores	,090	361	,000
a. Lilliefors Significance Correction			

P-value is <0.001, so there is strong evidence that the null hypothesis H_0*: the questionnaire's total scores follow normal distribution* should be rejected (Table 4.1.2). So the data do not follow a normal (or one that looks like normal) distribution for EQ-5D-5L questionnaire.

Some graphs are given below in order to understand the data a bit better.

CHART 4.1.2.1

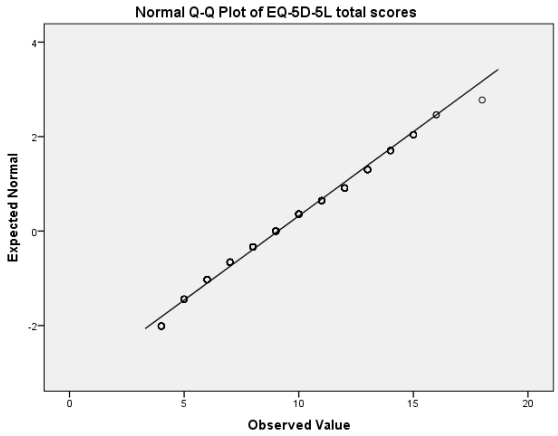
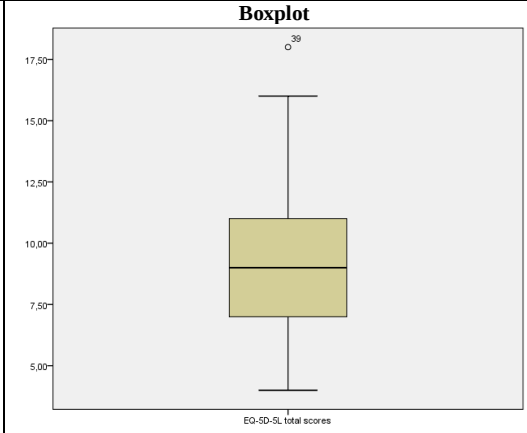


CHART 4.1.2.2



4.1.3 15D

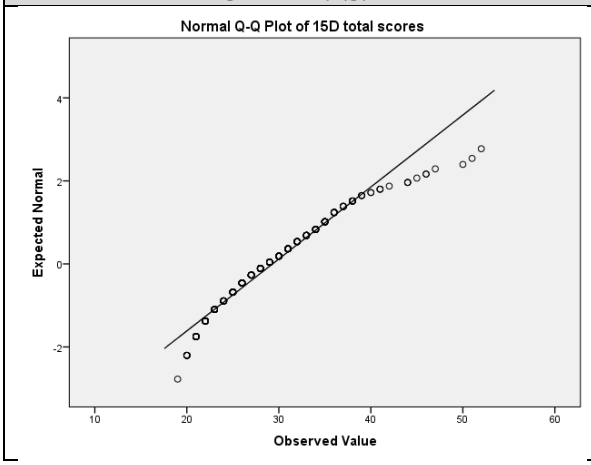
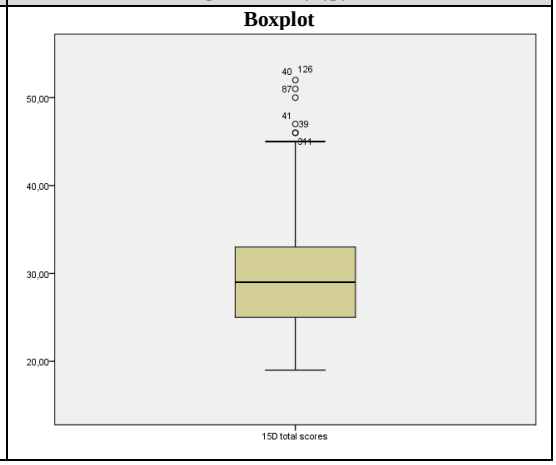
TABLE 4.1.3

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
15D total scores	,080	361	,000
a. Lilliefors Significance Correction			

P-value is <0.001, so there is strong evidence that the null hypothesis H_0*: the questionnaire's total scores follow normal distribution* should be rejected (Table 4.1.3). So data do not follow a normal (or one that looks like normal) distribution for 15D questionnaire.

Some graphs are given below in order to understand the data a bit better.

CHART 4.1.3.1	CHART 4.1.3.2
	

4.2 Demographics Analysis

The only thing changing here are the questionnaires, so every other procedure will be the same as in the questionnaires about anxiety.

4.2.1 Gender

4.2.1.1 General Health Questionnaire (SF) - 12

Mann-Whitney U value is 8899.5 and p-value is 0.735>0.05, so there is not sufficient evidence to reject the null hypothesis. So means for men and women are going to be assumed to be statistically equal in GHQ-12.

4.2.1.2 EQ-5D-5L

Mann-Whitney U value is 8982.5 and p-value is 0.821>0.05, so there is not sufficient evidence to reject the null hypothesis. So means for men and women are going to be assumed to be statistically equal in EQ-5D-5L.

4.2.1.3 15D

Mann-Whitney U value is 8602.5 and p-value is 0.46>0.05, so there is not sufficient evidence to reject the null hypothesis. So means for men and women are going to be assumed to be statistically equal in 15D.

4.2.2 Age

Continuous variables are going to be treated just like the way they were treated in the previous questionnaires about anxiety, so Spearman's ρ with null hypothesis $H_0 : \rho_s = 0$ vs $H_1 : \rho_s \neq 0$ is going to be used.

4.2.2.1 General Health Questionnaire (SF) – 12

Spearman's ρ value is 0.038 and p-value is 0.475>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and GHQ-12's total scores are not correlated with age.

4.2.2.2 EQ-5D-5L

TABLE 4.2.2.2

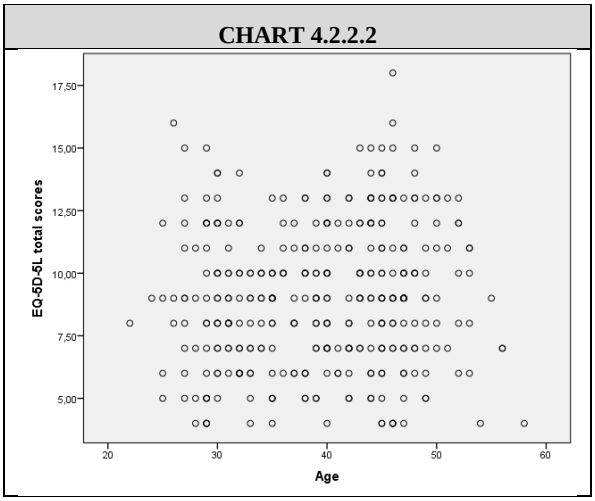
Correlations

			EQ-5D-5L total scores	Age
Spearman's rho	EQ-5D-5L total scores	Correlation Coefficient	1,000	,104*
		Sig. (2-tailed)	.	,048
		N	361	361
	Age	Correlation Coefficient	,104*	1,000
		Sig. (2-tailed)	,048	.
		N	361	361

*. Correlation is significant at the 0.05 level (2-tailed).

Spearman's ρ value is 0.104 and p-value is 0.048<0.05, so there is sufficient evidence to reject the null hypothesis (Table 4.2.2.2). This means that Spearman's correlation coefficient is assumed to be statistically different to 0 and EQ-5D-5L's total scores are correlated with age. The scatter plot between the two variables is given below.

CHART 4.2.2.2



4.2.2.3 15D

Spearman's ρ value is 0.038 and p-value is 0.468>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and 15D's total scores are not correlated with age.

4.2.3 Marital Status

4.2.3.1 General Health Questionnaire (SF) - 12

Chi-square value is 1.16, with 3 degrees of freedom and p-value is 0.763>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$. So all levels are assumed to be statistically equal and marital status doesn't affect the results of GHQ-12 total scores.

4.2.3.2 EQ-5D-5L

Chi-square value is 7.162, with 3 degrees of freedom and p-value is 0.067>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$. So all levels are assumed to be statistically equal and marital status doesn't affect the results of EQ-5D-5L total scores.

4.2.3.3 15D

Chi-square value is 2.535, with 3 degrees of freedom and p-value is 0.469>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$. So all levels are assumed to be statistically equal and marital status doesn't affect the results of 15D total scores.

4.2.4 Number of children

4.2.4.1 General Health Questionnaire (SF) - 12

Chi-square value is 1.48, with 4 degrees of freedom and p-value is 0.83>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in GHQ-12.

4.2.4.2 EQ-5D-5L

Chi-square value is 4.496, with 4 degrees of freedom and p-value is 0.343>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in EQ-5D-5L.

4.2.4.3 15D

Chi-square value is 1.374, with 4 degrees of freedom and p-value is 0.849>0.05. So there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ and all levels are assumed to be statistically equal in EQ-5D-5L.

4.2.5 Degree

4.2.5.1 General Health Questionnaire (SF) - 12

TABLE 4.2.5.1

Test Statistics[a]

	GHQ_total_scores
Mann-Whitney U	3558,500
Wilcoxon W	4119,500
Z	-3,255
Asymp. Sig. (2-tailed)	,001

a. Grouping Variable: Degree

Mann-Whitney U value is 3558.5 and p-value is 0.001<0.05 so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 4.2.5.1). So if someone has a degree or not affects the results in GHQ-12 and the mean of those who have at least one in questionnaire's total scores is statistically different from the one of those who don't have.

4.2.5.2 EQ-5D-5L

TABLE 4.2.5.2

Test Statistics[a]

	EQ-5D-5L total scores
Mann-Whitney U	2964,000
Wilcoxon W	3525,000
Z	-4,309
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: Degree

Mann-Whitney U value is 2964 and p-value is <0.001, so there is strong evidence that the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ should be rejected (Table 4.2.5.2). So if someone has a degree or not affects the results in EQ-5D-5L and the mean of those who have at least one in questionnaire's total scores is statistically different from the one of those who don't have.

3.2.5.3 15D

TABLE 4.2.5.3	
Test Statistics[a]	
	15D total scores
Mann-Whitney U	4057,000
Wilcoxon W	4618,000
Z	-2,375
Asymp. Sig. (2-tailed)	,018
a. Grouping Variable: Degree	

Mann-Whitney U value is 4057 and p-value is 0.018<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 4.2.5.3). So if someone has a degree or not affects the results in 15D and the mean of those who have at least one in questionnaire's total scores is statistically different from the one of those who don't have.

4.2.6 Second degree

4.2.6.1 General Health Questionnaire (SF) - 12

Mann-Whitney U value is 2574 and p-value is 0.23>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affect the results in GHQ-12 and the mean of those who have in questionnaire's total scores is statistically equal to the one of those who do not have.

4.2.6.2 EQ-5D-5L

TABLE 4.2.6.2	
Test Statistics[a]	
	EQ-5D-5L total scores
Mann-Whitney U	1862,000
Wilcoxon W	2033,000

Z	-2,855
Asymp. Sig. (2-tailed)	,004
a. Grouping Variable: Second degree	

Mann-Whitney U value is 1862 and p-value is 0.004<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 4.2.6.2). So if someone has a second degree or not affectS the results in EQ-5D-5L and the mean of those who have in questionnaire's total scores is statistically equal to the one of those who do not have.

4.2.6.3 15D

Mann-Whitney U value is 2253 and p-value is 0.053>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone has a second degree or not does not affect the results in 15D and the mean of those who have in questionnaire's total scores is statistically equal to the one of those who do not have.

4.2.7 Satisfied from work

4.2.7.1 General Health Questionnaire (SF) – 12

TABLE 4.2.7.1

Test Statistics[a,b]

	GHQ_total_scores
Chi-Square	14,804
Df	4
Asymp. Sig.	,005
a. Kruskal Wallis Test	
b. Grouping Variable: Satisfied from work	

Chi-square value is 14.804, with 4 degrees of freedom and p-value is 0.003< 0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ (Table 4.2.7.1). So satisfaction from work is a factor that affects total scores in GHQ-12 and the means of the levels of this demographic are statistically different.

CHART 4.2.7.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of GHQ_total_scores is the same across categories of Satisfied from work.	Independent-Samples Kruskal-Wallis Test	,005	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 4.2.7.1.2

Pairwise Comparisons of Satisfied from work

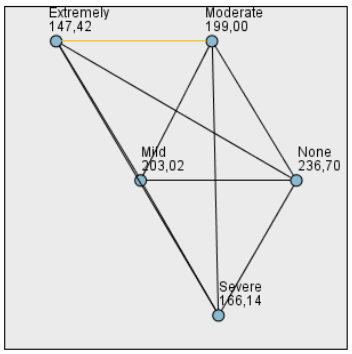


CHART 4.2.7.1.3

Each node shows the sample average rank of Satisfied from work.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Extremely-Severe	18,721	17,453	1,073	,283	1,000
Extremely-Moderate	51,578	17,006	3,033	,002	,024
Extremely-Mild	55,607	27,597	2,015	,044	,439
Extremely-None	89,282	48,827	1,829	,067	,675
Severe-Moderate	32,857	12,341	2,662	,008	,078
Severe-Mild	36,885	24,994	1,476	,140	1,000
Severe-None	70,560	47,405	1,488	,137	1,000
Moderate-Mild	4,028	24,684	,163	,870	1,000
Moderate-None	37,703	47,242	,798	,425	1,000
Mild-None	33,675	52,002	,648	,517	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The differences that lead to the rejection of the null hypothesis are between "Moderate" and "Extremely" with p-value=0.024<0.05 (Chart 4.2.7.1.3).

4.2.7.2 EQ-5D-5L

TABLE 4.2.7.2

Test Statistics[a,b]

	EQ-5D-5L total scores
Chi-Square	11,564
df	4
Asymp. Sig.	,021

a. Kruskal Wallis Test

b. Grouping Variable: Satisfied from work

Chi-square value is 11.564, with 4 degrees of freedom and p-value is 0.021< 0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ (Table 4.2.7.2). So satisfaction from work is a factor that affects total scores in EQ-5D-5L and the means of the levels of this demographic are statistically different.

CHART 4.2.7.2.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of EQ-5D-5L total scores is the same across categories of Satisfied from work.	Independent-Samples Kruskal-Wallis Test	,021	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 4.2.7.2.2

Pairwise Comparisons of Satisfied from work

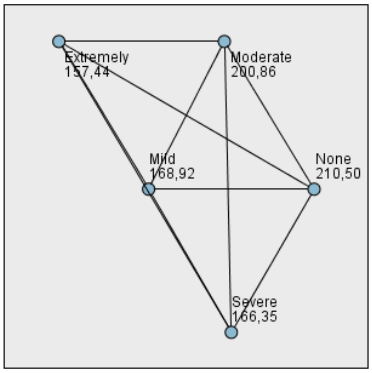


CHART 4.2.7.2.3

Each node shows the sample average rank of Satisfied from work.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Extremely-Severe	8,910	17,412	,512	,609	1,000
Extremely-Mild	11,486	27,533	,417	,677	1,000
Extremely-Moderate	43,425	16,967	2,559	,010	,105
Extremely-None	53,061	48,714	1,089	,276	1,000
Severe-Mild	2,576	24,936	,103	,918	1,000
Severe-Moderate	34,515	12,313	2,803	,005	,051
Severe-None	44,151	47,295	,934	,351	1,000
Mild-Moderate	-31,939	24,627	-1,297	,195	1,000
Mild-None	41,575	51,881	,801	,423	1,000
Moderate-None	9,636	47,133	,204	,838	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

Although there is sufficient evidence to reject the null hypothesis there are no differences between the levels to be considered statistically significant. The rejection might be because of the differences between levels "Severe" and "Moderate" since their p-values are just above the limit (0.051>0.05) (Chart 4.2.7.2.3).

4.2.7.3 15D

TABLE 4.2.7.3

Test Statistics[a,b]

	15D total scores
Chi-Square	18,479
df	4
Asymp. Sig.	,001

a. Kruskal Wallis Test

b. Grouping Variable: Satisfied from work

Chi-square value is 18.479, with 4 degrees of freedom and p-value is 0.001<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$ (Table 4.2.7.3). So satisfaction from work is a factor that affects total scores in 15D and the means of the levels of this demographic are statistically different.

CHART 4.2.7.3.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of 15D total scores is the same across categories of Satisfied from work.	Independent-Samples Kruskal-Wallis Test	,001	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 4.2.7.3.2

Pairwise Comparisons of Satisfied from work

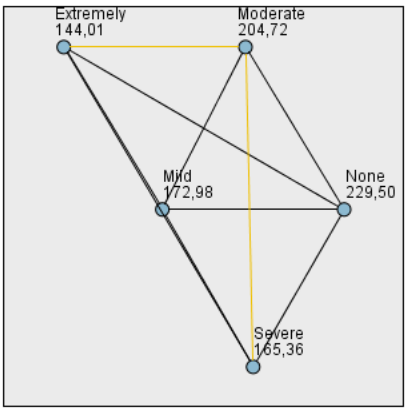


CHART 4.2.7.3.3

Each node shows the sample average rank of Satisfied from work.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Extremely-Severe	21,346	17,484	1,221	,222	1,000
Extremely-Mild	28,965	27,646	1,048	,295	1,000
Extremely-Moderate	60,714	17,036	3,564	,000	,004
Extremely-None	85,490	48,914	1,748	,081	,805
Severe-Mild	7,618	25,038	,304	,761	1,000
Severe-Moderate	39,368	12,363	3,184	,001	,015
Severe-None	64,143	47,489	1,351	,177	1,000
Mild-Moderate	-31,750	24,728	-1,284	,199	1,000
Mild-None	56,525	52,094	1,085	,278	1,000
Moderate-None	24,775	47,326	,524	,601	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between "Moderate" and levels "Extremely" (p-value=0.004<0.05) and "Severe" (p-value=0.015<0.05) (Chart 4.2.7.3.3).

4.2.8 Years of service

4.2.8.1 General Health Questionnaire (SF) – 12

Spearman's ρ value is 0.013 and p-value is 0.809>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and GHQ-12's total scores are not correlated with years of service.

4.2.8.2 EQ-5D-5L

Spearman's ρ value is 0.061 and p-value is 0.249>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and EQ-5D-5L's total scores are not correlated with years of service.

4.2.8.3 15D

Spearman's ρ value is 0.006 and p-value is 0.905>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and 15D's total scores are not correlated with years of service.

4.2.9 Smoking

4.2.9.1 General Health Questionnaire (SF) – 12

Mann-Whitney U value is 14878 and p-value is 0.804>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone is a smoker or not doesn't affect the results in GHQ-12's total scores.

4.2.9.2 EQ-5D-5L

Mann-Whitney U value is 14700.5 and p-value is 0.663>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone is a smoker or not doesn't affect the results in EQ-5D-5L's total scores.

4.2.9.3 15D

Mann-Whitney U value is 14243 and p-value is 0.361>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. So if someone is a smoker or not doesn't affect the results in 15D's total scores.

4.2.10.1 Working out

4.2.10.1.1 General Health Questionnaire (SF) – 12

TABLE 4.2.10.1.1

Test Statistics[a]

	GHQ_total_scores
Mann-Whitney U	12835,500
Wilcoxon W	23275,500
Z	-2,882
Asymp. Sig. (2-tailed)	,004

a. Grouping Variable: Are you working out?

Mann-Whitney U value is 12835.5 and p-value is 0.004<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 4.2.10.1.1). So if someone works out affects the results in GHQ-12's total scores and those who do have different mean than those who don't in that questionnaire.

4.2.10.1.2 EQ-5D-5L

TABLE 4.2.10.1.2

Test Statistics[a]

	EQ-5D-5L total scores
Mann-Whitney U	13440,000
Wilcoxon W	23880,000
Z	-2,262
Asymp. Sig. (2-tailed)	,024

a. Grouping Variable: Are you working out?

Mann-Whitney U value is 13440 and p-value is 0.024<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 4.2.10.1.2). So if someone works out affects the results in EQ-5D-5L's total scores and those who do have different mean than those who don't in that questionnaire.

4.2.10.1.3 15D

TABLE 4.2.10.1.3	
Test Statistics[a]	
	15D total scores
Mann-Whitney U	13146,000
Wilcoxon W	23586,000
Z	-2,556
Asymp. Sig. (2-tailed)	,011
a. Grouping Variable: Are you working out?	

Mann-Whitney U value is 13146 and p-value is 0.011<0.05, so there is sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$ (Table 4.2.10.1.3). So if someone works out affects the results in 15D's total scores and those who do have different mean than those who don't in that questionnaire.

4.2.10.2 If working out, how much?

4.2.10.2.1 General Health Questionnaire (SF) – 12

Chi-square value is 11.986 with 7 degrees of freedom and p-value is 0.101>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ and all levels are assumed to be statistically equal in GHQ-12's total scores. This is probably happening because, just like in questionnaires about anxiety, those seven levels that consisted level "Yes" before have now smaller differences from level "Never". So when all together (as one level) have statistical significant difference from that level, when seen as different levels they are considered to be statistically equal with "Never".

4.2.10.2.2 EQ-5D-5L

Chi-square value is 13.012 with 7 degrees of freedom and p-value is 0.072>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ and all levels are assumed to be statistically equal in EQ-5D-5L's total scores. This is probably happening for the same reason as in GHQ-12.

4.2.10.2.3 15D

Chi-square value is 13.112 with 7 degrees of freedom and p-value is 0.069>0.05. This means that there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$ and all levels are assumed to be statistically equal in 15D's total scores. This is probably happening for the same reason as in the previous questionnaires.

4.2.11.1 Drugs today

4.2.11.1.1 General Health Questionnaire (SF) - 12

Mann-Whitney U value is 2626.5 and p-value is 0.477>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that whether someone is using drugs or not does not affect the results in GHQ-12 and the mean of those who are in questionnaire's total scores is statistically equal with the one of those who are not.

4.2.11.1.2 EQ-5D-5L

Mann-Whitney U value is 2666.5 and p-value is 0.538>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that whether someone is using drugs or not does not affect the results in EQ-5D-5L and the mean of those who are in questionnaire's total scores is statistically equal with the one of those who are not.

4.2.11.1.3 15D

Mann-Whitney U value is 2608 and p-value is 0.451>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that whether someone is using drugs or not does not affect the results in 15D and the mean of those who are in questionnaire's total scores is statistically equal with the one of those who are not.

4.2.11.2 Drugs in the past

4.2.11.2.1 General Health Questionnaire (SF) - 12

Mann-Whitney U value is 2696 and p-value is 0.363>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that whether someone was a drug user in the past or not doesn't affect the results in GHQ-12's total scores.

4.2.11.2.2 EQ-5D-5L

Mann-Whitney U value is 2819 and p-value is 0.532>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that whether someone was a drug user in the past or not doesn't affect the results in EQ-5D-5L's total scores.

4.2.11.2.3 15D

Mann-Whitney U value is 2628.5 and p-value is 0.287>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{NO} = \mu_{YES}$. This means that whether someone was a drug user in the past or not doesn't affect the results in 15D's total scores.

4.2.12 Profession

4.2.12.1 General Health Questionnaire (SF) - 12

TABLE 4.2.12.1

Test Statistics[a,b]

	GHQ_total_scores
Chi-Square	41,399
Df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Chi-square value is 41.399 with 4 degrees of freedom and p-value<0.001, which means that there is strong evidence that the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$ should be rejected (Table 4.2.12.1).

Now it is going to be examined which levels are different.

CHART 4.2.12.1.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of GHQ_total_scores is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 4.2.12.1.2

Pairwise Comparisons of Profession

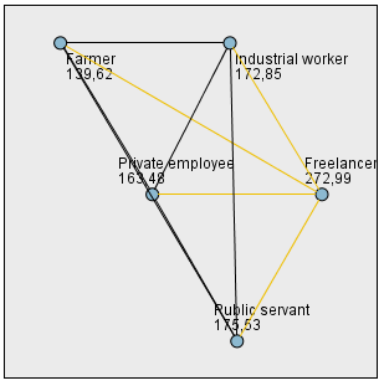


CHART 4.2.12.1.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Private employee	23,856	22,454	1,062	,288	1,000
Farmer-Industrial worker	33,224	23,263	1,428	,153	1,000
Farmer-Public servant	35,912	17,877	2,009	,045	,446
Farmer-Freelancer	133,366	22,833	5,841	,000	,000
Private employee-Industrial worker	-9,368	22,754	-,412	,681	1,000
Private employee-Public servant	-12,056	17,208	-,701	,484	1,000
Private employee-Freelancer	109,510	22,314	4,908	,000	,000
Industrial worker-Public servant	-2,687	18,251	-,147	,883	1,000
Industrial worker-Freelancer	100,142	23,128	4,330	,000	,000
Public servant-Freelancer	97,455	17,700	5,506	,000	,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

It is pretty clear that the level that produces the total difference between them is once again "Freelancer". There is strong evidence that it has statistically significant differences from all the other levels (all p-values<0.001) (Chart 4.2.12.1.3). So variable "Profession" affects the results in GHQ-12's total scores because those who belong to level "Freelancer" have different mean from all the others.

4.2.12.2 EQ-5D-5L

TABLE 4.2.12.2

Test Statistics[a,b]

	EQ-5D-5L total scores
Chi-Square	23,332
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Chi-square value is 23.332 with 4 degrees of freedom and p-value<0.001, which means that there is strong evidence that the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$ should be rejected (Table 4.2.12.2).

Now it is going to be examined which levels are different.

CHART 4.2.12.2.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of EQ-5D-5L total scores is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 4.2.12.2.2

Pairwise Comparisons of Profession

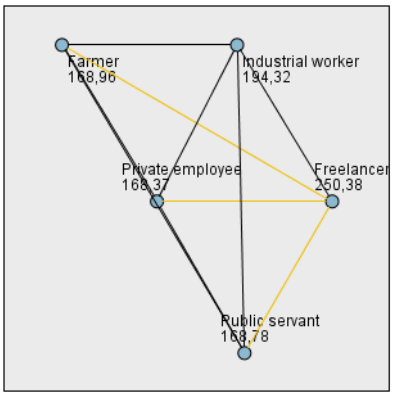


CHART 4.2.12.2.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Private employee-Public servant	-,409	17,169	-,024	,981	1,000
Private employee-Farmer	-,597	22,402	-,027	,979	1,000
Private employee-Industrial worker	-25,954	22,701	-1,143	,253	1,000
Private employee-Freelancer	82,014	22,262	3,684	,000	,002
Public servant-Farmer	-,188	17,835	-,011	,992	1,000
Public servant-Industrial worker	25,545	18,209	1,403	,161	1,000
Public servant-Freelancer	81,605	17,659	4,621	,000	,000
Farmer-Industrial worker	25,357	23,209	1,093	,275	1,000
Farmer-Freelancer	81,418	22,781	3,574	,000	,004
Industrial worker-Freelancer	56,060	23,074	2,430	,015	,151

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between "Freelancer" and all of the "Public servant" (p-value<0.001), "Private employee" (p-value=0.002<0.05) and "Farmer" (p-value=0.004<0.05) levels (Chart 4.2.12.2.3).

4.2.12.3 15D

TABLE 4.2.12.3

Test Statistics[a,b]

	15D total scores
Chi-Square	42,731
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Chi-square value is 42.731 with 4 degrees of freedom and p-value<0.001, which means that there is strong evidence tha the null hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$ should be rejected.

Now it is going to be examined which levels are different.

CHART 4.2.12.3.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of 15D total scores is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 4.2.12.3.2

Pairwise Comparisons of Profession

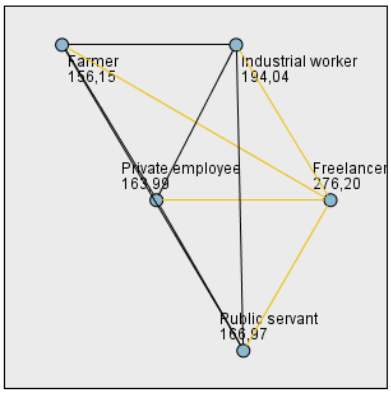


CHART 4.2.12.3.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Private employee	7,843	22,494	,349	,727	1,000
Farmer-Public servant	10,820	17,909	,604	,546	1,000
Farmer-Industrial worker	37,892	23,304	1,626	,104	1,000
Farmer-Freelancer	120,056	22,874	5,249	,000	,000
Private employee-Public servant	-2,978	17,239	-,173	,863	1,000
Private employee-Industrial worker	-30,050	22,794	-1,318	,187	1,000
Private employee-Freelancer	112,213	22,354	5,020	,000	,000
Public servant-Industrial worker	27,072	18,284	1,481	,139	1,000
Public servant-Freelancer	109,236	17,732	6,161	,000	,000
Industrial worker-Freelancer	82,164	23,169	3,546	,000	,004

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between “Freelancer” and all the other levels. Particularly p-values for the differences between them and “Public servant”, “Private employee” and “Farmer” are <0.001 and the one with “Industrial worker” to be 0.004 (Chart 4.2.12.3.3).

CHAPTER 5: REGRESSIONS

In this chapter regressions are going to be applied in the data in order to examine which variables are (statistically) significant) in some cases.

This is going to be examined in every questionnaire with the method of stepwise regression with every variable that found to be significant in the previous chapters.

Subsequently, since the interest is gathering around the workforce of Greece, it is going to be examined which of the variables that were found to be significant will enter a regression model in every level of the variable "Profession".

Tables "Variables Entered/Removed" and "Model Summary" were left out due to space saving, while for the same reason only the best model is given in tables "Coefficients".

5.1 Anxiety questionnaires

5.1.1 Hamilton Rating Scale for Depression questionnaire

As shown above, in chapter 3, the important variables in HAM-D according to Mann-Whitney U and Kruskal-Wallis H tests were found to be "Degree", "Satisfied from work", "Working out" and "Profession". A linear regression is going to be applied with these variables and stepwise method.

TABLE 5.1.1.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2937,240	1	2937,240	62,265	,000[b]
	Residual	16935,292	359	47,174		
	Total	19872,532	360			
2	Regression	3492,858	2	1746,429	38,171	,000[c]
	Residual	16379,674	358	45,753		
	Total	19872,532	360			
3	Regression	3867,552	3	1289,184	28,756	,000[d]
	Residual	16004,980	357	44,832		
	Total	19872,532	360			
4	Regression	4100,795	4	1025,199	23,141	,000[e]
	Residual	15771,737	356	44,303		
	Total	19872,532	360			

a. Dependent Variable: Hamilton Rating Scale for Depression Total Scores

b. Predictors: (Constant), Profession

c. Predictors: (Constant), Profession, Satisfied from work

d. Predictors: (Constant), Profession, Satisfied from work, Degree

e. Predictors: (Constant), Profession, Satisfied from work, Degree, Are you working out?

TABLE 5.1.1.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	24,171	1,564		15,453	,000
	Profession	-2,544	,296	-,408	-8,586	,000
	Satisfied from work	-1,380	,416	-,157	-3,316	,001
	Degree	-3,245	1,231	-,126	-2,636	,009
	Are you working out?	-1,653	,721	-,109	-2,295	,022

a. Dependent Variable: Hamilton Rating Scale for Depression Total Scores

The first variable to enter the model was "Profession", since it is the one that explains the most variabilit. This is very positive for this study since the main purpose is to study the workforce in Greece. In model 2, after the second iteration, enters "Satisfied from work". "Profession" still explains most of the variabity but this was not sure that would happen, because whilst it is the first variable to enter, possible correlations between the variables entering in every step could affect that. In model 3 enters "Degree", while in model 4 enters "Working out" (Table 5.1.1.1). In each step "Profession" remains the variable that explains the most of the variability. In table "Model Summary" the biggest R_{adj}^2 belongs in model 4, so this is the one that is going to be considered to be the best. As indicated by table "Coefficients", all the variables are statistically significant (p-values<0.05), with "Profession" being the one with the lowest p-value (<0.001) as expected.

5.1.2 The State-Trait Anxiety Inventory

As shown in chapter 3, the variables that were found to be statistically significant in STAI were "Working out", "If working out, how much?" and "Profession". The same procedure as in HAM-D is going to be followed.

TABLE 5.1.2.1

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5787,292	1	5787,292	75,102	,000[b]
	Residual	27664,381	359	77,060		
	Total	33451,673	360			
2	Regression	6675,667	2	3337,834	44,627	,000[c]
	Residual	26776,006	358	74,793		
	Total	33451,673	360			

a. Dependent Variable: STAI Total Scores
b. Predictors: (Constant), Profession
c. Predictors: (Constant), Profession, If yes, how much?

TABLE 5.1.2.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
2	(Constant)	101,398	1,435		70,665	,000
	Profession	-3,425	,383	-,423	-8,943	,000
	If yes, how much?	-,998	,290	-,163	-3,446	,001

a. Dependent Variable: STAI Total Scores

The first variable to enter and the one that explains the most variability is "Profession". "If yes *(working out)*, how much?" is the second variable to enter (Table 5.1.2.1), with "Working out" being the left out of the model which is considered to be the best, model 2 (the one with the bigger R_{adj}^2 in table "Model Summary"). As indicated by table "Coefficients", the variable with the lowest p-value (<0.001) in model 2 is "Profession". The reason that "Working out" does not finally enter the model is probably because it is highly correlated with "If yes, how much?", so only the one that explains more variability enters from the two of them.

5.1.3 Ways of Coping

The same procedure is about to be followed in WAYS, but as before every one of the scales should be examined separately.

5.1.3.1 Scale 1

As shown in chapter 3, the variables that were found to be statistically significant in Scale 1 of WAYS were "Marital status", "Degree", "Second degree", "Satisfied from work", "If working out, how much?" and "Profession".

TABLE 5.1.3.1.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	718,144	1	718,144	23,665	,000[b]
	Residual	10894,405	359	30,347		
	Total	11612,548	360			
2	Regression	912,962	2	456,481	15,274	,000[c]
	Residual	10699,586	358	29,887		

	Total	11612,548	360			
	Regression	1108,976	3	369,659	12,564	,000[d]
3	Residual	10503,572	357	29,422		
	Total	11612,548	360			

a. Dependent Variable: Scale1

b. Predictors: (Constant), Satisfied from work

c. Predictors: (Constant), Satisfied from work, Marital Stasus

d. Predictors: (Constant), Satisfied from work, Marital Stasus, Degree

TABLE 5.1.3.1.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	15,995	1,273		12,562	,000
	Satisfied from work	1,565	,339	,233	4,613	,000
	Marital Stasus	1,460	,541	,136	2,697	,007
	Degree	2,564	,993	,130	2,581	,010

a. Dependent Variable: Scale1

The first variable to enter the model and the one that explains the most of the variability is "Satisfied from work". In model 2 enters "Marital Status" and in model 3 "Degree" (Table 5.1.3.1.1). In table "Model Summary" the best model is number 3, with total p-value<0.001 (Table "ANOVA"), and as table "Coefficients"indicates, "Satisfied from work" remains the one with the lowest p-value (<0.001). "Second degree" was probably left out of the model because of its correlation with "Degree", while "Profession" and "If yes, how much?" were not considered statistically significant in Scale 1.

5.1.3.2 Scale 2

As shown in chapter 3, the variables that were found to be statistically significant in Scale 2 of WAYS were "Gender", "If working out, how much?" and "Profession".

TABLE 5.1.3.2.1

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75,579	1	75,579	7,210	,008[b]
	Residual	3763,374	359	10,483		
	Total	3838,953	360			
2	Regression	147,794	2	73,897	7,167	,001[c]
	Residual	3691,159	358	10,311		
	Total	3838,953	360			

a. Dependent Variable: Scale2

b. Predictors: (Constant), Profession

c. Predictors: (Constant), Profession, Gender

TABLE 5.1.3.2.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	13,090	,517		25,305	,000
	Profession	-,379	,142	-,138	-2,672	,008
	Gender	-1,194	,451	-,137	-2,647	,008

a. Dependent Variable: Scale2

The first variable to enter and the one that explains the most of the variability is "Profession" and in model 2 enters "Gender" (Table 5.1.3.2.2). In table "Model Summary" the best model is number 2, with total p-value<0.001 (Table "ANOVA"), and table "Coefficients" indicates that both variables have the same p-value (0.008). "If yes, how much?" was not considered statistically significant in Scale 2.

5.1.3.3 Scale 3

As shown in chapter 3, the variables that were found to be statistically significant in Scale 3 of WAYS were "Gender", "Degree", "Second degree", "Satisfied from work", "Working out" and "Profession".

TABLE 5.1.3.3.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	440,842	1	440,842	9,694	,002[b]
	Residual	16324,953	359	45,473		
	Total	16765,795	360			
2	Regression	713,945	2	356,972	7,961	,000[c]
	Residual	16051,850	358	44,838		
	Total	16765,795	360			
3	Regression	1017,435	3	339,145	7,688	,000[d]
	Residual	15748,360	357	44,113		
	Total	16765,795	360			
4	Regression	1233,399	4	308,350	7,067	,000[e]
	Residual	15532,396	356	43,630		
	Total	16765,795	360			
5	Regression	1431,080	5	286,216	6,626	,000[f]
	Residual	15334,715	355	43,196		

Total	16765,795	360			

a. Dependent Variable: Scale3
b. Predictors: (Constant), Are you working out?
c. Predictors: (Constant), Are you working out?, Profession
d. Predictors: (Constant), Are you working out?, Profession, Degree
e. Predictors: (Constant), Are you working out?, Profession, Degree, Second degree
f. Predictors: (Constant), Are you working out?, Profession, Degree, Second degree, Gender

TABLE 5.1.3.3.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
5	(Constant)	23,674	1,129		20,967	,000
	Are you working out?	-1,830	,717	-,132	-2,553	,011
	Profession	-,889	,295	-,155	-3,011	,003
	Degree	-2,798	1,225	-,118	-2,284	,023
	Second degree	-3,673	1,626	-,117	-2,259	,024
	Gender	-1,989	,930	-,109	-2,139	,033

a. Dependent Variable: Scale3

The first variable to enter and the one that explains the most of the variability is "Working out". In model 2 enters "Profession", in model 3 "Degree", in model 4 "Second degree" and in model 5 "Gender" (Table 5.1.3.3.1). In table "Model Summary" the best model is number 5, with total p-value<0.001 (Table "ANOVA"), and table "Coefficients" indicates that "Profession" has the lowest p-value (0.003) although it was not the first one to enter. "Satisfied from work" was not considered statistically significant in Scale 3.

5.1.3.4 Scale 4

As shown in chapter 3, the variables that were found to be statistically significant in Scale 4 of WAYS were "Working out" and "Profession".

TABLE 5.1.3.4.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138,875	1	138,875	13,023	,000[b]
	Residual	3828,411	359	10,664		
	Total	3967,285	360			
2	Regression	185,135	2	92,568	8,762	,000[c]
	Residual	3782,150	358	10,565		
	Total	3967,285	360			

a. Dependent Variable: Scale4

b. Predictors: (Constant), Profession

c. Predictors: (Constant), Profession, Are you working out?

TABLE 5.1.3.4.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	19,799	,541		36,609	,000
	Profession	-,529	,144	-,190	-3,680	,000
	Are you working out?	-,731	,349	-,108	-2,093	,037

a. Dependent Variable: Scale4

The first variable to enter and the one that explains the most of the variability is "Profession" and in model 2 enters "Working out" (Table 5.1.3.4.1). In table "Model Summary" the best model is the second with both variables. Its total p-value is <0.001 (Table "ANOVA") and table "Coefficients" indicates that "Profession" has the lowest p-value (<0.001).

5.1.3.5 Scale 5

As shown in chapter 3, the only variable that was found to be statistically significant in Scale 5 of WAYS was "Working out".

TABLE 5.1.3.5.1

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	26,278	1	26,278	5,495	,020[b]
	Residual	1716,659	359	4,782		
	Total	1742,936	360			

a. Dependent Variable: Scale5

b. Predictors: (Constant), Are you working out?

TABLE 5.1.3.5.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,512	,148		37,128	,000
	Are you working out?	,551	,235	,123	2,344	,020

a. Dependent Variable: Scale5

"Working out" enters the model (Table 5.1.3.5.1), its total p-value is 0.02<0.05 (Table "ANOVA") and table "Coefficients" indicates that "Working out" has p-value 0.02, same as the whole model since it's the only variable in that.

5.2 Quality of Life questionnaires

The same procedure is about to be followed for the questionnaires about quality of life.

5.2.1 General Health Questionnaire (Short-Form) - 12

As shown in chapter 4, the variables that were found to be statistically significant in GHQ-12 were "Degree", "Satisfied from work", "Working out" and "Profession".

TABLE 5.2.1.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	500,614	1	500,614	33,985	,000[b]
	Residual	5288,250	359	14,731		
	Total	5788,864	360			
2	Regression	777,858	2	388,929	27,786	,000[c]
	Residual	5011,006	358	13,997		
	Total	5788,864	360			
3	Regression	989,895	3	329,965	24,546	,000[d]
	Residual	4798,970	357	13,442		
	Total	5788,864	360			
4	Regression	1088,965	4	272,241	20,621	,000[e]
	Residual	4699,899	356	13,202		
	Total	5788,864	360			

a. Dependent Variable: GHQ total scores

b. Predictors: (Constant), Profession

c. Predictors: (Constant), Profession, Satisfied from work

d. Predictors: (Constant), Profession, Satisfied from work, Degree

e. Predictors: (Constant), Profession, Satisfied from work, Degree, Are you working out?

TABLE 5.2.1.2

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

	(Constant)	29,888	,854		35,003	,000
	Profession	-1,096	,162	-,326	-6,780	,000
4	Satisfied from work	-,973	,227	-,205	-4,285	,000
	Degree	-2,472	,672	-,178	-3,679	,000
	Are you working out?	-1,078	,393	-,132	-2,739	,006

a. Dependent Variable: GHQ total scores

The first variable to enter and the one that explains the most of the variability is "Profession". In model 2 enters "Satisfied from work", in model 3 "Degree" and in model 4 "Working out" (Table 5.2.1.1). In table "Model Summary" the best model is number 4, with total p-value<0.001 (Table "ANOVA"), and table "Coefficients" indicates that the first three variables to enter have p-values<0.001. All variables that were found to be significant in chapter 4 were found to be significant for the regression model as well.

5.2.2 EQ-5D-5L

As shown in chapter 4, the variables that were found to be statistically significant in EQ-5D-5L were "Age", "Degree", "Second degree", "Satisfied from work", "Working out" and "Profession".

TABLE 5.2.2.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	146,160	1	146,160	19,510	,000[b]
	Residual	2689,447	359	7,491		
	Total	2835,607	360			
2	Regression	299,685	2	149,842	21,153	,000[c]
	Residual	2535,922	358	7,084		
	Total	2835,607	360			
3	Regression	367,989	3	122,663	17,746	,000[d]
	Residual	2467,618	357	6,912		
	Total	2835,607	360			
4	Regression	415,688	4	103,922	15,288	,000[e]
	Residual	2419,919	356	6,798		
	Total	2835,607	360			

a. Dependent Variable: EQ-5D-5L total scores

b. Predictors: (Constant), Degree

c. Predictors: (Constant), Degree, Profession

d. Predictors: (Constant), Degree, Profession, Second degree

e. Predictors: (Constant), Degree, Profession, Second degree, Satisfied from work

TABLE 5.2.2.2						
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	12,590	,608		20,704	,000
	Degree	-2,169	,484	-,223	-4,487	,000
	Profession	-,615	,117	-,261	-5,252	,000
	Second degree	-1,983	,644	-,154	-3,078	,002
	Satisfied from work	-,432	,163	-,130	-2,649	,008
a. Dependent Variable: EQ-5D-5L total scores						

The first variable to enter and the one that explains the most of the variability is "Degree". In model 2 enters "Profession", in model 3 "Second degree" and in model 4 "Satisfied from work" (Table 5.2.2.1). In table "Model Summary" the best model is number 4, with total p-value<0.001 (Table "ANOVA"), and table "Coefficients" indicates that "Degree" and "Profession" have the lowest p-values (<0.001). "Age" and "Second degree" were not found to be significant for the regression model.

5.2.3 15D

As shown in chapter 4, the variables that were found to be statistically significant in 15D were "Degree", "Satisfied from work", "Working out" and "Profession".

TABLE 5.2.3.1						
ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1230,327	1	1230,327	41,098	,000[b]
	Residual	10747,302	359	29,937		
	Total	11977,629	360			
2	Regression	1707,077	2	853,538	29,752	,000[c]
	Residual	10270,552	358	28,689		
	Total	11977,629	360			
3	Regression	1971,256	3	657,085	23,443	,000[d]
	Residual	10006,373	357	28,029		
	Total	11977,629	360			
4	Regression	2169,195	4	542,299	19,683	,000[e]
	Residual	9808,433	356	27,552		
	Total	11977,629	360			
a. Dependent Variable: 15D total scores						
b. Predictors: (Constant), Profession						
c. Predictors: (Constant), Profession, Satisfied from work						

d. Predictors: (Constant), Profession, Satisfied from work, Degree

e. Predictors: (Constant), Profession, Satisfied from work, Degree, Are you working out?

TABLE 5.2.3.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	39,158	1,234		31,745	,000
	Profession	-1,680	,234	-,347	-7,190	,000
	Satisfied from work	-1,284	,328	-,188	-3,912	,000
	Degree	-2,699	,971	-,135	-2,780	,006
	Are you working out?	-1,523	,568	-,129	-2,680	,008

a. Dependent Variable: 15D total scores

The first variable to enter and the one that explains the most of the variability is "Profession". In model 2 enters "Satisfied from work", in model 3 "Degree" and in model 4 "Working out" (Table 5.2.3.1). In table "Model Summary" the best model is number 4, with total p-value<0.001 (Table "ANOVA"), and as table "Coefficients" indicates, "Profession" and "Satisfied from work" have the lowest p-values (<0.001). All variables that were found to be (statistically) significant in chapter 4 are significant for the regression model as well.

5.3 Regressions in each profession

The same procedure is about to be followed here but this time it will be for every one of the levels of "Profession". Of course "Profession" is going to be excluded from the independent variables of the regression. The pursose is to find out which variables are (statistically) significant for every profession in this study.

5.3.1 Freelancer

TABLE 5.3.1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Profession = 1 (FILTER)	42	1	1	1,00	,000
Valid N (listwise)	42				

5.3.1.1 Anxiety questionnaires

5.3.1.1.1 Hamilton Rating Scale for Depression questionnaire

Without "Profession" there are "Degree", "Satisfied from work" and "Working out" to run the regression.

TABLE 5.3.1.1.1.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	574,780	1	574,780	7,840	,008[b]
	Residual	2932,554	40	73,314		
	Total	3507,333	41			

a. Dependent Variable: Hamilton Rating Scale for Depression Total Scores

b. Predictors: (Constant), Are you working out?

TABLE 5.3.1.1.1.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23,696	1,785		13,272	,000
	Are you working out?	-7,432	2,654	-,405	-2,800	,008

a. Dependent Variable: Hamilton Rating Scale for Depression Total Scores

The only variable to enter the regression model is "Working out" (Table 5.3.1.1.1.1). The model is statistically significant, with p-value=0.008<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.1.1.2 The State-Trait Anxiety Inventory

Without "Profession" there are "Working out" and "If yes, how much?" to run the regression.

TABLE 5.3.1.1.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	558,614	1	558,614	5,775	,021[c]
	Residual	3869,291	40	96,732		
	Total	4427,905	41			

a. Profession = Freelancer

b. Dependent Variable: STAI Total Scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.1.1.2.2					
Coefficients[a,b]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	99,696	2,051		48,613	,000
1 Are you working out?	-7,327	3,049	-,355	-2,403	,021
a. Profession = Freelancer					
b. Dependent Variable: STAI Total Scores					

The only variable to enter the regression model is "Working out" (Table 5.3.1.1.2.1). The model is statistically significant, with p-value=0.021<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.1.1.3 WAYS

5.3.1.1.3.1 Scale 1

Without "Profession" there are "Marital status", "Degree", "Second degree", "Satisfied from work" and "If yes, how much?" to run the regression.

TABLE 5.3.1.1.3.1.1						
ANOVA[a,b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	420,713	1	420,713	10,962	,002[c]
	Residual	1535,192	40	38,380		
	Total	1955,905	41			
a. Profession = Freelancer						
b. Dependent Variable: Scale1						
c. Predictors: (Constant), Satisfied from work						

TABLE 5.3.1.1.3.1.2					
Coefficients[a,b]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	12,508	2,724		4,592	,000
1 Satisfied from work	3,512	1,061	,464	3,311	,002
a. Profession = Freelancer					
b. Dependent Variable: Scale1					

The only variable to enter the regression model is "Satisfied from work" (Table 5.3.1.1.3.1.1). The model is statistically significant, with p-value=0.021<0.05, which is the same with the one of "Satisfied from work" variable since it is the only one in the model.

5.3.1.1.3.2 Scale 2

Without "Profession" there are "Marital status", "Degree", "Second degree", "Satisfied from work" and "If yes, how much?" to run the regression.

No variables were found statistically significant in the regression model for Scale 2 of WAYS for freelancers.

5.3.1.1.3.3 Scale 3

Without "Profession" there are "Gender", "Degree", "Second degree" and "Working out" to run the regression.

TABLE 5.3.1.1.3.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	398,766	1	398,766	13,127	,001[c]
	Residual	1215,139	40	30,378		
	Total	1613,905	41			

a. Profession = Freelancer

b. Dependent Variable: Scale3

c. Predictors: (Constant), Degree

TABLE 5.3.1.1.3.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22,306	,919		24,282	,000
	Degree	-8,806	2,430	-,497	-3,623	,001

a. Profession = Freelancer

b. Dependent Variable: Scale3

The only variable to enter the regression model is "Degree" (Table 5.3.1.1.3.3.1). The model is statistically significant, with p-value=0.001<0.05, which is the same with the one of "Degree" variable since it is the only one in the model.

5.3.1.1.3.4 Scale 4

Without "Profession" there is only "Working out" to run the regression.

"Working out" was not found to be statistically significant in the regression model for Scale 4 of WAYS for freelancers.

5.3.1.1.3.5 Scale 5

The only variable that was found to be statistically significant in scale 5 of WAYS in chapter 3 was "Working out". It was also the only one that "Profession" was not found to be significant.

"Working out" was not found to be statistically significant in the regression model for Scale 5 of WAYS for freelancers.

5.3.1.2 Quality of Life questionnaires

5.3.1.2.1 GHQ-12

Without "Profession" there are "Degree", "Satisfied from work" and "Working out" to run the regression.

TABLE 5.3.1.2.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	160,321	1	160,321	9,293	,004[c]
	Residual	690,083	40	17,252		
	Total	850,405	41			

a. Profession = Freelancer

b. Dependent Variable: GHQ total scores

c. Predictors: (Constant), Degree

TABLE 5.3.1.2.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27,917	,692		40,327	,000
	Degree	-5,583	1,832	-,434	-3,048	,004

a. Profession = Freelancer
b. Dependent Variable: GHQ total scores

The only variable to enter the regression model is "Degree" (Table 5.3.1.2.3.1). The model is statistically significant, with p-value=0.004<0.05, which is the same with the one of "Degree" variable since it is the only one in the model.

5.3.1.2.2 EQ-5D-5L

TABLE 5.3.1.2.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	122,921	1	122,921	14,830	,000[c]
	Residual	331,556	40	8,289		
	Total	454,476	41			

a. Profession = Freelancer

b. Dependent Variable: EQ-5D-5L total scores

c. Predictors: (Constant), Degree

TABLE 5.3.1.2.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11,889	,480		24,777	,000
	Degree	-4,889	1,270	-,520	-3,851	,000

a. Profession = Freelancer

b. Dependent Variable: EQ-5D-5L total scores

The only variable to enter the regression model is "Degree" (Table 5.3.1.2.2.1). The model is statistically significant, with p-value<0.001, which is the same with the one of "Degree" variable since it is the only one in the model.

5.3.1.2.3 15D

TABLE 5.3.1.2.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	300,099	1	300,099	7,320	,010[c]
	Residual	1639,806	40	40,995		
	Total	1939,905	41			

a. Profession = Freelancer

b. Dependent Variable: 15D total scores

c. Predictors: (Constant), Degree

TABLE 5.3.1.2.3.2						
Coefficients[a,b]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36,472	1,067		34,178	,000
	Degree	-7,639	2,823	-,393	-2,706	,010
a. Profession = Freelancer						
b. Dependent Variable: 15D total scores						

The only variable to enter the regression model is "Degree" (Table 5.3.1.2.3.1). The model is statistically significant, with p-value=0.01<0.05, which is the same with the one of "Degree" variable since it is the only one in the model.

5.3.2 Private employee

TABLE 5.3.2					
Profession = 1 (FILTER)[a]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Selected	45	100,0	100,0	100,0
a. Profession = Private employee					

5.3.2.1 Anxiety questionnaires

5.3.2.1.1 Hamilton Rating Scale for Depression questionnaire

No variables were found statistically significant in the regression model for HAM-D for private employees.

5.3.2.1.2 The State-Trait Anxiety Inventory

No variables were found statistically significant in the regression model for STAI for private employees.

5.3.2.1.3 WAYS

5.3.2.1.3.1 Scale 1

TABLE 5.3.2.1.3.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	100,800	1	100,800	4,774	,034[c]
	Residual	908,000	43	21,116		
	Total	1008,800	44			

a. Profession = Private employee

b. Dependent Variable: Scale1

c. Predictors: (Constant), Second degree

TABLE 5.3.2.1.3.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24,333	,709		34,318	,000
	Second degree	6,000	2,746	,316	2,185	,034

a. Profession = Private employee

b. Dependent Variable: Scale1

The only variable to enter the regression model is "Second degree" (Table 5.3.2.1.3.1.1). The model is statistically significant, with p-value=0.021<0.05, which is the same with the one of "Second degree" variable since it is the only one in the model.

5.3.2.1.3.2 Scale 2

No variables were found statistically significant in the regression model for Scale 2 of WAYS for private employees.

5.3.2.1.3.3 Scale 3

TABLE 5.3.2.1.3.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	254,975	1	254,975	7,478	,009[c]
	Residual	1466,225	43	34,098		
	Total	1721,200	44			

a. Profession = Private employee

b. Dependent Variable: Scale3

c. Predictors: (Constant), Are you working out?

TABLE 5.3.2.1.3.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20,321	1,104		18,415	,000
	Are you working out?	-4,910	1,795	-,385	-2,735	,009

a. Profession = Private employee

b. Dependent Variable: Scale3

The only variable to enter the regression model is "Working out" (Table 5.3.2.1.3.3.2). The model is statistically significant, with p-value=0.021<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.2.1.3.4 Scale 4

TABLE 5.3.2.1.3.4.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39,773	1	39,773	4,364	,043[c]
	Residual	391,872	43	9,113		
	Total	431,644	44			

a. Profession = Private employee

b. Dependent Variable: Scale4

c. Predictors: (Constant), Are you working out?

TABLE 5.3.2.1.3.4.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18,821	,571		32,991	,000
	Are you working out?	-1,939	,928	-,304	-2,089	,043

a. Profession = Private employee

b. Dependent Variable: Scale4

"Working out" is considered statistically significant for the regression model (Table 5.3.2.1.3.4.1). It has p-value=0.043<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.2.1.3.5 Scale 5

No variables were found statistically significant in the regression model for Scale 5 of WAYS for private employees.

5.3.2.2 Quality of Life questionnaires

5.3.2.2.1 GHQ-12

TABLE 5.3.2.2.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	85,969	1	85,969	6,550	,014[c]
	Residual	564,342	43	13,124		
	Total	650,311	44			

a. Profession = Private employee

b. Dependent Variable: GHQ total scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.2.2.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23,321	,685		34,064	,000
	Are you working out?	-2,851	1,114	-,364	-2,559	,014

a. Profession = Private employee

b. Dependent Variable: GHQ total scores

The only variable to enter the regression model is "Working out" (Table 5.3.2.2.1.1). The model is statistically significant, with p-value=0.014<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.2.2.2 EQ-5D-5L

No variables were found statistically significant in the regression model for EQ-5D-5L for private employees.

5.3.2.2.3 15D

TABLE 5.3.2.2.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	200,816	1	200,816	4,749	,035[c]
	Residual	1818,429	43	42,289		
	Total	2019,244	44			

a. Profession = Private employee

b. Dependent Variable: 15D total scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.2.2.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	30,357	1,229		24,702	,000
	Are you working out?	-4,357	1,999	-,315	-2,179	,035

a. Profession = Private employee

b. Dependent Variable: 15D total scores

The only variable to enter the regression model is "Working out" (Table 5.3.2.2.3.1). The model is statistically significant, with p-value=0.035<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.3 Industrial worker

TABLE 5.3.3

Profession = 1 (FILTER)[a]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Selected	39	100,0	100,0	100,0

a. Profession = Industrial worker

5.3.3.1 Anxiety questionnaires

5.3.3.1.1 Hamilton Rating Scale for Depression questionnaire

TABLE 5.3.3.1.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	352,625	1	352,625	6,073	,018[c]
	Residual	2148,349	37	58,063		

	Total	2500,974	38			

a. Profession = Industrial worker

b. Dependent Variable: Hamilton Rating Scale for Depression Total Scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.3.1.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14,810	1,663		8,906	,000
	Are you working out?	-6,032	2,448	-,375	-2,464	,018

a. Profession = Industrial worker

b. Dependent Variable: Hamilton Rating Scale for Depression Total Scores

The only variable to enter the regression model is "Working out" (Table 5.3.3.1.1.1). The model is statistically significant, with p-value=0.018<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.3.1.2 The State-Trait Anxiety Inventory

TABLE 5.3.3.1.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	494,052	1	494,052	4,573	,039[c]
	Residual	3997,692	37	108,046		
	Total	4491,744	38			

a. Profession = Industrial worker

b. Dependent Variable: STAI Total Scores

c. Predictors: (Constant), If yes, how much?

TABLE 5.3.3.1.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	91,459	2,168		42,180	,000
	If yes, how much?	-1,998	,934	-,332	-2,138	,039

a. Profession = Industrial worker

b. Dependent Variable: STAI Total Scores

The only variable to enter the regression model is "If yes, how much?" (Table 5.3.3.1.2.1). The model is statistically significant, with p-value=0.018<0.05, which is the same with the one of "If yes, how much?" variable since it is the only one in the model.

5.3.3.1.3 WAYS

5.3.3.1.3.1 Scale 1

TABLE 5.3.3.1.3.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	253,500	1	253,500	15,704	,000[c]
	Residual	597,269	37	16,142		
	Total	850,769	38			

a. Profession = Industrial worker

b. Dependent Variable: Scale1

c. Predictors: (Constant), Marital Stasus

TABLE 5.3.3.1.3.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12,077	3,343		3,613	,001
	Marital Stasus	6,500	1,640	,546	3,963	,000

a. Profession = Industrial worker

b. Dependent Variable: Scale1

The only variable to enter the regression model is "Marital status" (Table 5.3.3.1.3.1.1). The model is statistically significant, with p-value=0.021<0.05, which is the same with the one of "Marital status" variable since it is the only one in the model.

5.3.3.1.3.2 Scale 2

No variables were found statistically significant in the regression model for Scale 2 of WAYS for industrial workers.

5.3.3.1.3.3 Scale 3

No variables were found statistically significant in the regression model for Scale 3 of WAYS for industrial workers.

5.3.3.1.3.4 Scale 4

No variables were found statistically significant in the regression model for Scale 4 of WAYS for industrial workers.

5.3.3.1.3.5 Scale 5

No variables were found statistically significant in the regression model for Scale 5 of WAYS for industrial workers.

5.3.3.2 Quality of Life questionnaires

5.3.3.2.1 GHQ-12

TABLE 5.3.3.2.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94,772	1	94,772	6,404	,016[c]
	Residual	547,587	37	14,800		
	Total	642,359	38			

a. Profession = Industrial worker

b. Dependent Variable: GHQ total scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.3.2.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24,238	,839		28,872	,000
	Are you working out?	-3,127	1,236	-,384	-2,531	,016

a. Profession = Industrial worker

b. Dependent Variable: GHQ total scores

The only variable to enter the regression model is "Working out" (Table 5.3.3.2.1.1). The model is statistically significant, with p-value=0.016<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.3.2.2 EQ-5D-5L

TABLE 5.3.3.2.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47,522	1	47,522	7,049	,012[c]
	Residual	249,452	37	6,742		
	Total	296,974	38			

a. Profession = Industrial worker

b. Dependent Variable: EQ-5D-5L total scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.3.2.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10,381	,567		18,321	,000
	Are you working out?	-2,214	,834	-,400	-2,655	,012

a. Profession = Industrial worker

b. Dependent Variable: EQ-5D-5L total scores

The only variable to enter the regression model is "Working out" (Table 5.3.3.2.2.1). The model is statistically significant, with p-value=0.012<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.3.2.3 15D

TABLE 5.3.3.2.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	302,574	1	302,574	10,005	,003[c]
	Residual	1119,016	37	30,244		
	Total	1421,590	38			

a. Profession = Industrial worker

b. Dependent Variable: 15D total scores

c. Predictors: (Constant), Are you working out?

TABLE 5.3.3.2.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	32,476	1,200		27,062	,000
	Are you working out?	-5,587	1,766	-,461	-3,163	,003

a. Profession = Industrial worker

b. Dependent Variable: 15D total scores

The only variable to enter the regression model is "Working out" (Table 5.3.3.2.3.1). The model is statistically significant, with p-value=0.003<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.4 Public servant

TABLE 5.3.4					
Profession = 1 (FILTER)[a]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Selected	194	100,0	100,0	100,0
a. Profession = Public servant					

5.3.4.1 Anxiety questionnaires

5.3.4.1.1 Hamilton Rating Scale for Depression questionnaire

TABLE 5.3.4.1.1.1						
ANOVA[a,b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	155,533	1	155,533	6,738	,010[c]
	Residual	4432,224	192	23,085		
	Total	4587,758	193			
a. Profession = Public servant b. Dependent Variable: Hamilton Rating Scale for Depression Total Scores c. Predictors: (Constant), Satisfied from work						

TABLE 5.3.4.1.1.2					
Coefficients[a,b]					
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12,262	1,096		11,190	,000
	Satisfied from work	-1,075	,414	-,184	-2,596	,010
a. Profession = Public servant b. Dependent Variable: Hamilton Rating Scale for Depression Total Scores						

The only variable to enter the regression model is "Satisfied from work" (Table 5.3.4.1.1.1). The model is statistically significant, with p-value=0.01<0.05, which is the same with the one of "Satisfied from work" variable since it is the only one in the model.

5.3.4.1.2 The State-Trait Anxiety Inventory

No variables were found statistically significant in the regression model for STAI for public servants.

5.3.4.1.3 WAYS

5.3.4.1.3.1 Scale 1

TABLE 5.3.4.1.3.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	229,249	1	229,249	7,515	,007[c]
	Residual	5856,922	192	30,505		
	Total	6086,170	193			
2	Regression	354,702	2	177,351	5,910	,003[d]
	Residual	5731,468	191	30,008		
	Total	6086,170	193			
3	Regression	498,198	3	166,066	5,647	,001[e]
	Residual	5587,972	190	29,410		
	Total	6086,170	193			

a. Profession = Public servant

b. Dependent Variable: Scale1

c. Predictors: (Constant), Satisfied from work

d. Predictors: (Constant), Satisfied from work, Degree

e. Predictors: (Constant), Satisfied from work, Degree, Marital Stasus

TABLE 5.3.4.1.3.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19,181	1,260		15,228	,000
	Satisfied from work	1,306	,476	,194	2,741	,007
2	(Constant)	18,968	1,254		15,130	,000
	Satisfied from work	1,298	,472	,193	2,748	,007
	Degree	3,011	1,473	,144	2,045	,042
3	(Constant)	16,530	1,661		9,953	,000
	Satisfied from work	1,179	,471	,175	2,504	,013
	Degree	3,573	1,480	,170	2,415	,017
	Marital Stasus	1,633	,739	,157	2,209	,028

a. Profession = Public servant

b. Dependent Variable: Scale1

The first variable to enter and the one that explains the most of the variability is "Satisfied from work". In model 2 "Degree" enters " and in model 3 "Marital status" (Table 5.3.4.1.3.1.1). In table "Model Summary" the best model is number 3, with total p-

value=0.001 (Table "ANOVA"), and table "Coefficients" indicates that "Satisfied from work" has the lowest p-value (0.013).

5.3.4.1.3.2 Scale 2

TABLE 5.3.4.1.3.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53,670	1	53,670	5,032	,026[c]
	Residual	2047,861	192	10,666		
	Total	2101,531	193			

a. Profession = Public servant

b. Dependent Variable: Scale2

c. Predictors: (Constant), Gender

TABLE 5.3.4.1.3.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	11,619	,258		45,001	,000
	Gender	-1,383	,617	-,160	-2,243	,026

a. Profession = Public servant

b. Dependent Variable: Scale2

The only variable to enter the regression model is "Gender" (Table 5.3.4.1.3.2.1). The model is statistically significant, with p-value=0.026<0.05, which is the same with the one of "Gender" variable since it is the only one in the model.

5.3.4.1.3.3 Scale 3

TABLE 5.3.4.1.3.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	221,746	1	221,746	5,085	,025[c]
	Residual	8372,707	192	43,608		
	Total	8594,454	193			
2	Regression	409,885	2	204,942	4,783	,009[d]
	Residual	8184,569	191	42,851		
	Total	8594,454	193			

a. Profession = Public servant

b. Dependent Variable: Scale3

c. Predictors: (Constant), Second degree

d. Predictors: (Constant), Second degree, Are you working out?

TABLE 5.3.4.1.3.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	20,435	,599		34,097	,000
	Second degree	-6,255	2,715	-,163	-2,304	,022
	Are you working out?	-2,039	,973	-,148	-2,095	,037

a. Profession = Public servant

b. Dependent Variable: Scale3

The first variable to enter and the one that explains the most of the variability is "Second degree", while in model 2 enters "Working out" (Table 5.3.4.1.3.3.1). In table "Model Summary" the best model is number 2, with total p-value=0.009 (Table "ANOVA"), and table "Coefficients" indicates that "Second degree" has the lowest p-value (0.022).

5.3.4.1.3.4 Scale 4

No variables were found statistically significant in the regression model for Scale 4 of WAYS for public servants.

5.3.4.1.3.5 Scale 5

TABLE 5.3.4.1.3.5.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,161	1	25,161	5,310	,022[c]
	Residual	909,726	192	4,738		
	Total	934,887	193			

a. Profession = Public servant

b. Dependent Variable: Scale5

c. Predictors: (Constant), Are you working out?

TABLE 5.3.4.1.3.5.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,393	,197		27,368	,000

	Are you working out?	,745	,323	,164	2,304	,022

a. Profession = Public servant

b. Dependent Variable: Scale5

"Working out" is statistically significant for the regression model (Table 5.3.4.1.3.5.1). It has p-value=0.022<0.05, which is the same with the one of "Working out" variable since it is the only one in the model.

5.3.4.2 Quality of Life questionnaires

5.3.4.2.1 GHQ-12

TABLE 5.3.4.2.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147,653	1	147,653	12,291	,001[c]
	Residual	2306,599	192	12,014		
	Total	2454,253	193			
2	Regression	222,717	2	111,358	9,531	,000[d]
	Residual	2231,536	191	11,683		
	Total	2454,253	193			

a. Profession = Public servant

b. Dependent Variable: GHQ total scores

c. Predictors: (Constant), Satisfied from work

d. Predictors: (Constant), Satisfied from work, Degree

TABLE 5.3.4.2.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	25,502	,782		32,600	,000
	Satisfied from work	-1,042	,295	-,244	-3,535	,001
	Degree	-2,329	,919	-,175	-2,535	,012

a. Profession = Public servant

b. Dependent Variable: GHQ total scores

The first variable to enter and the one that explains the most of the variability is "Satisfied from work", while in model 2 enters "Degree" (Table 5.3.4.2.1.1). In table "Model Summary" the best model is number 2, with total p-value<0.001 (Table "ANOVA"), and as table "Coefficients" indicates, "Satisfied from work" has the lowest p-value (0.001).

5.3.4.2.2 EQ-5D-5L

TABLE 5.3.4.2.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71,085	1	71,085	11,331	,001[c]
	Residual	1204,529	192	6,274		
	Total	1275,613	193			
2	Regression	103,707	2	51,854	8,451	,000[d]
	Residual	1171,906	191	6,136		
	Total	1275,613	193			
3	Regression	129,004	3	43,001	7,126	,000[e]
	Residual	1146,609	190	6,035		
	Total	1275,613	193			

a. Profession = Public servant

b. Dependent Variable: EQ-5D-5L total scores

c. Predictors: (Constant), Degree

d. Predictors: (Constant), Degree, Satisfied from work

e. Predictors: (Constant), Degree, Satisfied from work, Age

TABLE 5.3.4.2.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	8,222	1,105		7,444	,000
	Degree	-2,064	,667	-,215	-3,095	,002
	Satisfied from work	-,500	,212	-,162	-2,360	,019
	Age	,053	,026	,142	2,047	,042

a. Profession = Public servant

b. Dependent Variable: EQ-5D-5L total scores

The first variable to enter and the one that explains the most of the variability is "Degree". In model 2 enters "Satisfied from work", while in model 3 enters "Age" (Table 5.3.4.2.2.1). In table "Model Summary" the best model is number 3, with total p-value<0.001 (Table "ANOVA"), and as table "Coefficients" indicates, "Degree" has the lowest p-value (0.002).

5.3.4.2.3 15D

TABLE 5.3.4.2.3.1

ANOVA[a,b]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	204,070	1	204,070	10,249	,002[c]
	Residual	3822,817	192	19,911		
	Total	4026,887	193			

a. Profession = Public servant

b. Dependent Variable: 15D total scores

c. Predictors: (Constant), Satisfied from work

TABLE 5.3.4.2.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	31,422	1,018		30,877	,000
	Satisfied from work	-1,232	,385	-,225	-3,201	,002

a. Profession = Public servant

b. Dependent Variable: 15D total scores

The only variable to enter the regression model is "Satisfied from work" (Table 5.3.4.2.3.1). The model is statistically significant, with p-value=0.002<0.05, which is the same with the one of "Satisfied from work" variable since it is the only one in the model.

5.3.5 Farmer

TABLE 5.3.5

Profession = 1 (FILTER)[a]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Selected	41	100,0	100,0	100,0

a. Profession = Farmer

5.3.5.1 Anxiety questionnaires

5.3.5.1.1 Hamilton Rating Scale for Depression questionnaire

No variables were found statistically significant in the regression model for HAM-D for farmers.

5.3.5.1.2 The State-Trait Anxiety Inventory

No variables were found statistically significant in the regression model for STAI for farmers.

5.3.5.1.3 WAYS

5.3.5.1.3.1 Scale 1

TABLE 5.3.5.1.3.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	173,514	1	173,514	7,153	,011[c]
	Residual	945,998	39	24,256		
	Total	1119,512	40			
2	Regression	294,441	2	147,220	6,780	,003[d]
	Residual	825,071	38	21,712		
	Total	1119,512	40			

a. Profession = Farmer

b. Dependent Variable: Scale1

c. Predictors: (Constant), Marital Stasus

d. Predictors: (Constant), Marital Stasus, Satisfied from work

TABLE 5.3.5.1.3.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	21,339	3,768		5,663	,000
	Marital Stasus	-3,446	1,406	-,345	-2,450	,019
	Satisfied from work	2,489	1,055	,332	2,360	,024

a. Profession = Farmer

b. Dependent Variable: Scale1

The first variable to enter and the one that explains the most of the variability is "Marital status", while in model 2 enters "Satisfied from work" (Table 5.3.5.1.3.1.1). In table "Model Summary" the best model is number 2, with total p-value=0.003 (Table "ANOVA"), and table "Coefficients" indicates that "Marital status" has the lowest p-value (0.019).

5.3.5.1.3.2 Scale 2

No variables were found statistically significant in the regression model for Scale2 of WAYS for farmers.

5.3.5.1.3.3 Scale 3

TABLE 5.3.5.1.3.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	170,525	1	170,525	4,131	,049[c]
	Residual	1609,719	39	41,275		
	Total	1780,244	40			
2	Regression	402,072	2	201,036	5,543	,008[d]
	Residual	1378,172	38	36,268		
	Total	1780,244	40			

a. Profession = Farmer

b. Dependent Variable: Scale3

c. Predictors: (Constant), Gender

d. Predictors: (Constant), Gender, Degree

TABLE 5.3.5.1.3.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	16,245	1,074		15,132	,000
	Gender	-5,819	2,299	-,366	-2,530	,016
	Degree	11,164	4,419	,365	2,527	,016

a. Profession = Farmer

b. Dependent Variable: Scale3

The first variable to enter and the one that explains the most of the variability is "Gender", while in model 2 enters "Degree" (Table 5.3.5.1.3.3.1). In table "Model Summary" the best model is number 2, with total p-value=0.008 (Table "ANOVA"), and table "Coefficients" indicates that both variables have the same p-value (0.016).

5.3.5.1.3.4 Scale 4

No variables were found statistically significant in the regression model for Scale 4 of WAYS for farmers.

5.3.5.1.3.5 Scale 5

No variables were found statistically significant in the regression model for Scale 5 of WAYS for farmers.

5.3.5.2 Quality of Life questionnaires

5.3.5.2.1 GHQ-12

No variables were found statistically significant in the regression model for GHQ-12 for farmers.

5.3.5.2.2 EQ-5D-5L

TABLE 5.3.5.2.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42,224	1	42,224	8,517	,006[c]
	Residual	193,337	39	4,957		
	Total	235,561	40			

a. Profession = Farmer

b. Dependent Variable: EQ-5D-5L total scores

c. Predictors: (Constant), Age

TABLE 5.3.5.2.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,464	2,184		1,128	,266
	Age	,166	,057	,423	2,918	,006

a. Profession = Farmer

b. Dependent Variable: EQ-5D-5L total scores

The only variable to enter the regression model is "Age" (Table 5.3.5.2.2.1). The model is statistically significant, with p-value=0.006<0.05, which is the same with the one of "Age" variable since it is the only one in the model.

5.3.5.2.3 15D

No variables were found statistically significant in the regression model for 15D for farmers.

CHAPTER 6: TEMPORARY VS PERMANENT ANXIETY

As mentioned earlier, the State-Trait Anxiety Inventory gives the opportunity to examine whether the subject has temporary or permanent anxiety. The State Anxiety Scale (S-Anxiety) evaluates the current state of anxiety, asking how respondents feel "right now", while the Trait Anxiety Scale (T-Anxiety) evaluates relatively stable aspects of "anxiety proneness," including general states of calmness, confidence, and security. The purpose of this chapter is to examine if the professions in the study correlate with temporary or permanent anxiety. In the data S-Anxiety is being called "STAI subscale 1" and T-Anxiety "STAI subscale 2".

At first data for the two subscales were tested to detect if they are coming from a normal distribution (or at least one that looks like normal). However, since the total data for STAI questionnaire rejected the normality, the expectation is that the two subscales will reject normality too. For typical reasons normality tests are about to follow.

TABLE 6.1

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
STAI subscale 1	,054	361	,015

a. Lilliefors Significance Correction

TABLE 6.2

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
STAI subscale 2	,102	361	,000

a. Lilliefors Significance Correction

As expected there is sufficient evidence to reject the null hypothesis for subscale 1 (p-value=0.015<0.05) and strong evidence that the null hypothesis should be rejected for subscale 2 (p-value<0.001). So non-parametric statistics are going to be applied as above.

6.1 STAI Subscale 1

The same procedure as before is going to be followed for STAI subscales with using Mann-Whitney U, Kruskal-Wallis H and Spearman's ρ. Tables in non-significant results are not going to be given in order to save some space.

6.1.1 Gender

Mann-Whitney U value is 8194 and p-value is 0.198>0.05 so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{MEN} = \mu_{WOMEN}$.

6.1.2 Age

Spearman's ρ value is 0.043 and p-value is 0.417>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI subscale's 1 total scores are not correlated with age.

6.1.3 Marital status

Chi-square value is 1.014 and p-value is 0.798>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.1.4 Number of children

Chi-square value is 5.281 and p-value is 0.26>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.1.5 Degree

Mann Whitney U value is 4806.5 and p-value is 0.289>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{YES} = \mu_{NO}$.

6.1.6 Second degree

Mann Whitney U value is 2468 and p-value is 0.152>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{YES} = \mu_{NO}$.

6.1.7 Satisfied from work

Chi-square value is 3.696 and p-value is 0.449>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.1.8 Years of service

Spearman's ρ value is 0.054 and p-value is 0.302>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI subscale's 1 total scores are not correlated with years of service.

6.1.9 Smoking

Mann Whitney U value is 14161.5 and p-value is 0.318>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{YES} = \mu_{NO}$.

6.1.10.1 Working out

Mann Whitney U value is 14552 and p-value is 0.269>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{YES} = \mu_{NO}$.

6.1.10.2 If yes, how much?

Chi-square value is 8.081 and p-value is 0.326>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.1.11.1 Using drugs today

Mann Whitney U value is 2805.5 and p-value is 0.778>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{YES} = \mu_{NO}$.

6.1.11.2 Drug user in the past

Mann Whitney U value is 3076 and p-value is 0.98>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{YES} = \mu_{NO}$.

6.1.12 Profession

TABLE 6.1.12

Test Statistics[a,b]

	STAI subscale 1
Chi-Square	81,063
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Chi-square value is 81.063 and p-value is <0.001, so there is strong evidence that the null hypothesis should be rejected. So "Profession" affects STAI subscale's 1 total scores and it is going to be examined which levels are different.

CHART 6.1.12.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Stai υποκλίμακα 1 is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 6.1.12.2

Pairwise Comparisons of Profession

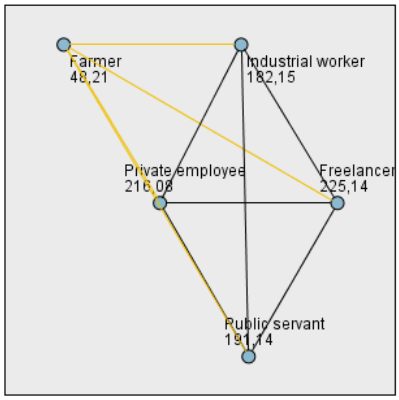


CHART 6.1.12.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Industrial worker	133,947	23,308	5,747	,000	,000
Farmer-Public servant	142,932	17,911	7,980	,000	,000
Farmer-Private employee	167,870	22,497	7,462	,000	,000
Farmer-Freelancer	176,936	22,877	7,734	,000	,000
Industrial worker-Public servant	-8,985	18,286	-,491	,623	1,000
Industrial worker-Private employee	33,924	22,797	1,488	,137	1,000
Industrial worker-Freelancer	42,989	23,172	1,855	,064	,636
Public servant-Private employee	24,939	17,241	1,446	,148	1,000
Public servant-Freelancer	34,004	17,734	1,917	,055	,552
Private employee-Freelancer	9,065	22,357	,405	,685	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

The statistically significant differences are between “Farmer” and all the other levels and all p-values are <0.001 (Chart 6.1.12.3). So there is strong evidence that means for farmers are statistically different from all the others.

6.2 STAI Subscale 2

6.2.1 Gender

Mann Whitney U value is 8167 and p-value is 0.185>0.05, so there is not sufficient evidence to reject the null hypothesis $H_0 : \mu_{MEN} = \mu_{WOMEN}$.

6.2.2 Age

Spearman's ρ value is 0.078 and p-value is 0.138>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI subscale's 2 total scores are not correlated with age.

6.2.3 Marital status

Chi-square value is 0.873 and p-value is 0.832>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.4 Number of children

Chi-square value is 0.873 and p-value is 0.832>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.5 Degree

TABLE 6.2.5

Test Statistics[a]

	STAI subscale 2
Mann-Whitney U	3636,500
Wilcoxon W	4197,500
Z	-3,113
Asymp. Sig. (2-tailed)	,002

a. Grouping Variable: Degree

Mann-Whitney U value is 3636.5 and p-value is 0.002<0.05, so there is sufficient evidence to reject the null hypothesis (Table 6.2.5). So the mean of those who have (at least) one degree is assumed to be statistically different from the one of those who don't.

6.2.6 Second degree

Mann-Whitney U value is 2780.5 and p-value is 0.477>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.7 Satisfied from work

Chi-square value is 5.45 and p-value is 0.244>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.8 Years of service

Spearman's ρ value is 0.069 and p-value is 0.191>0.05, so there is not sufficient evidence to reject the null hypothesis. This means that Spearman's correlation coefficient is assumed to be statistically equal to 0 and STAI subscale's 2 total scores are not correlated with years of service.

6.2.9 Smoking

Mann-Whitney U value is 15095 and p-value is 0.984>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.10.1 Working out

TABLE 6.2.10.1

Test Statistics[a]

	STAI subscale 2
Mann-Whitney U	12010,500
Wilcoxon W	22450,500
Z	-3,728
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: Are you working out?

Mann-Whitney U value is 12010.5 and p-value is <0.001, so there is strong evidence that the null hypothesis should be rejected. This means that the mean of those who work out is assumed to be statistically different from the one of those who don't.

6.2.10.2 If yes, how much?

TABLE 6.2.10.2

Test Statistics[a,b]

	STAI subscale 2
Chi-Square	16,610
df	7
Asymp. Sig.	,020

a. Kruskal Wallis Test

b. Grouping Variable: If yes, how much?

Chi-square value is 16.61 and p-value is 0.02<0.05, so there is sufficient evidence to reject the null hypothesis. It is going to be examined which levels are different.

CHART 6.2.10.2.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Stai υποκλίμακα 2 is the same across categories of If yes, how much?.	Independent-Samples Kruskal-Wallis Test	,020	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 6.2.10.2.2

Pairwise Comparisons of If yes, how much?

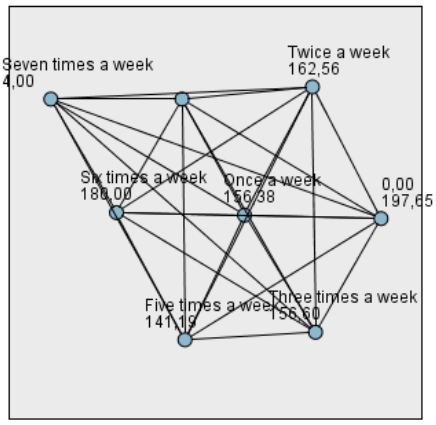


CHART 6.2.10.2.3

Each node shows the sample average rank of If yes, how much?.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Seven times a week-Five times a week	137,188	107,376	1,278	,201	1,000
Seven times a week-Four times a week	150,333	109,805	1,369	,171	1,000
Seven times a week-Once a week	152,375	110,489	1,379	,168	1,000
Seven times a week-Three times a week	152,602	105,049	1,453	,146	1,000
Seven times a week-Twice a week	158,560	105,207	1,507	,132	1,000
Seven times a week-Six times a week	176,000	147,319	1,195	,232	1,000
Seven times a week-0	193,652	104,410	1,855	,064	1,000
Five times a week-Four times a week	13,146	43,404	,303	,762	1,000
Five times a week-Once a week	15,188	45,107	,337	,736	1,000
Five times a week-Three times a week	15,414	29,362	,525	,600	1,000
Five times a week-Twice a week	21,372	29,921	,714	,475	1,000
Five times a week-Six times a week	-38,812	107,376	-,361	,718	1,000
Five times a week-0	56,465	26,986	2,092	,036	1,000
Four times a week-Once a week	2,042	50,618	,040	,968	1,000
Four times a week-Three times a week	2,268	37,278	,061	,951	1,000
Four times a week-Twice a week	8,227	37,719	,218	,827	1,000
Four times a week-Six times a week	-25,667	109,805	-,234	,815	1,000
Four times a week-0	43,319	35,436	1,222	,222	1,000
Once a week-Three times a week	-,227	39,247	-,006	,995	1,000
Once a week-Twice a week	-6,185	39,667	-,156	,876	1,000
Once a week-Six times a week	-23,625	110,489	-,214	,831	1,000
Once a week-0	41,277	37,502	1,101	,271	1,000
Three times a week-Twice a week	5,958	20,024	,298	,766	1,000
Three times a week-Six times a week	-23,398	105,049	-,223	,824	1,000
Three times a week-0	41,050	15,295	2,684	,007	,204
Twice a week-Six times a week	-17,440	105,207	-,166	,868	1,000
Twice a week-0	35,092	16,341	2,147	,032	,889
Six times a week-0	17,652	104,410	,169	,866	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

There are no statistically significant differences between the levels although the null hypothesis was rejected. The lowest p-value is 0.204>0.05 and it is between "Three times a week" and "zero" (Chart 6.2.10.2.3).

6.2.11.1 Using drugs today

Mann-Whitney U value is 2682 and p-value is 0.564>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.11.2 Drug user in the past

Mann-Whitney U value is 2797 and p-value is 0.501>0.05, so there is not sufficient evidence to reject the null hypothesis.

6.2.12 Profession

TABLE 6.2.12

Test Statistics[a,b]

	STAI subscale 2
Chi-Square	68,947
df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Profession

Chi-square value is 68.947 and p-value is <0.001, so there is strong evidence that the null hypothesis should be rejected. Which levels are different is going to be examined below.

CHART 6.2.12.1

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Stai υποκλίμακα 2 is the same across categories of Profession.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

CHART 6.2.12.2

Pairwise Comparisons of Profession

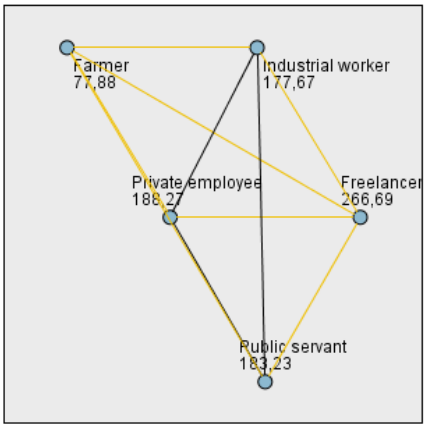


CHART 6.2.12.3

Each node shows the sample average rank of Profession.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Farmer-Industrial worker	99,789	23,300	4,283	,000	,000
Farmer-Public servant	105,349	17,905	5,884	,000	,000
Farmer-Private employee	110,389	22,490	4,908	,000	,000
Farmer-Freelancer	188,812	22,870	8,256	,000	,000
Industrial worker-Public servant	-5,560	18,280	-,304	,761	1,000
Industrial worker-Private employee	10,600	22,790	,465	,642	1,000
Industrial worker-Freelancer	89,024	23,165	3,843	,000	,001
Public servant-Private employee	5,040	17,236	,292	,770	1,000
Public servant-Freelancer	83,464	17,729	4,708	,000	,000
Private employee-Freelancer	78,424	22,350	3,509	,000	,004

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

There are statistically significant differences between “Farmer” and all the other with p-values<0.001. There are also between “Freelancer” with all of “Public servant” (p-value<0.001), “Industrial worker” (p-value=0.001) and “Private employee” (p-value=0.004).

6.3 Regressions

6.3.1 Linear Regression

6.3.1.1 STAI Subscale 1

The only variable that was found to be statistically significant is “Profession”, so it is going to be examined if it is statistically significant to enter the regression model.

TABLE 6.3.1.1.1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1345,062	1	1345,062	41,962	,000[b]
	Residual	11507,487	359	32,054		
	Total	12852,548	360			

a. Dependent Variable: Stai υποκλίμακα 1

b. Predictors: (Constant), Profession

TABLE 6.3.1.1.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	51,283	,904		56,744	,000
	Profession	-1,622	,250	-,324	-6,478	,000

a. Dependent Variable: Stai υποκλίμακα 1

“Profession” enters the regression model (Table 6.3.1.1.1), which has p-value<0.001, the same as “Profession” in the model since it is the only variable in it (Table 6.3.1.1.2).

6.3.1.2 STAI Subscale 2

The variables that were found to be statistically significant in this subscale were “Degree”, “Working out”, “If yes, how much?” and “Profession”, so it is going to be examined which of them are statistically significant to enter the regression model.

TABLE 6.3.1.2.1						
ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1552,294	1	1552,294	51,786	,000[b]
	Residual	10761,057	359	29,975		
	Total	12313,352	360			
2	Regression	2160,309	2	1080,155	38,087	,000[c]
	Residual	10153,042	358	28,360		
	Total	12313,352	360			
3	Regression	2591,182	3	863,727	31,716	,000[d]
	Residual	9722,170	357	27,233		
	Total	12313,352	360			

a. Dependent Variable: Stai υποκλίμακα 2

b. Predictors: (Constant), Profession

c. Predictors: (Constant), Profession, If yes, how much?

d. Predictors: (Constant), Profession, If yes, how much?, Degree

TABLE 6.3.1.2.2					
Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
3 (Constant)	50,476	,879		57,448	,000
Profession	-1,882	,232	-,383	-8,106	,000
If yes, how much?	-,773	,175	-,208	-4,408	,000
Degree	-3,821	,961	-,189	-3,978	,000

a. Dependent Variable: Stai υποκλίμακα 2

The first variable to enter and the one that explains the most of the variability is "Profession". In model 2 enters "If yes, how much?" and in model 3 "Degree" (Table 6.3.1.2.1). In table "Model Summary" the best model is number 3. Its total p-value is <0.001 (Table "ANOVA") and table "Coefficients" indicates that all variables have p-values<0.001.

6.3.2 Regressions in each level of "Profession"

6.3.2.1 Subscale 1

This regression cannot be applied in STAI's subscale 1 since the only variable that was found to be statistically significant here is "Profession".

6.3.2.2 Subscale 2

6.3.2.2.1 Freelancer

TABLE 6.3.2.2.1.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	313,337	1	313,337	9,071	,004[c]
	Residual	1381,639	40	34,541		
	Total	1694,976	41			
2	Regression	486,754	2	243,377	7,856	,001[d]
	Residual	1208,222	39	30,980		
	Total	1694,976	41			

a. Profession = Freelancer

b. Dependent Variable: Stai υποκλίμακα 2

c. Predictors: (Constant), Degree

d. Predictors: (Constant), Degree, If yes, how much?

TABLE 6.3.2.2.1.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	50,693	1,137		44,600	,000
	Degree	-6,541	2,512	-,360	-2,604	,013
	If yes, how much?	-1,301	,550	-,327	-2,366	,023

a. Profession = Freelancer

b. Dependent Variable: Stai υποκλίμακα 2

The first variable to enter and the one that explains the most of the variability is "Degree" and in model 2 enters "If yes, how much?" (Table 6.3.2.2.1.1). In table "Model Summary" the best model is number 2. Its total p-value is 0.001 (Table "ANOVA") and as table "Coefficients" indicates, the lowest p-value (0.013) belongs to "Degree".

6.3.2.2.2 Private employee

TABLE 6.3.2.2.2.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	196,964	1	196,964	6,634	,014[c]
	Residual	1276,680	43	29,690		
	Total	1473,644	44			

	Regression	333,224	2	166,612	6,136	,005[d]
2	Residual	1140,420	42	27,153		
	Total	1473,644	44			

a. Profession = Private employee
b. Dependent Variable: Stai υποκλίμακα 2
c. Predictors: (Constant), If yes, how much?
d. Predictors: (Constant), If yes, how much?, Degree

TABLE 6.3.2.2.2.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	45,105	,978		46,125	,000
2	If yes, how much?	-1,198	,485	-,337	-2,469	,018
	Degree	-5,142	2,295	-,305	-2,240	,030

a. Profession = Private employee
b. Dependent Variable: Stai υποκλίμακα 2

The first variable to enter and the one that explains the most of the variability is "If yes, how much?" and in model 2 enters "Degree" (Table 6.3.2.2.2.1). In table "Model Summary" the best model is number 2 with total p-value 0.005 (Table "ANOVA"). In table "Coefficients" the lowest p-value (0.013) in the regression model belongs to "Degree".

6.3.2.2.3 Industrial worker

TABLE 6.3.2.2.3.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	217,897	1	217,897	7,214	,011[c]
1	Residual	1117,539	37	30,204		
	Total	1335,436	38			

a. Profession = Industrial worker
b. Dependent Variable: Stai υποκλίμακα 2
c. Predictors: (Constant), If yes, how much?

TABLE 6.3.2.2.3.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	44,563	1,146		38,871	,000
1	If yes, how much?	-1,327	,494	-,404	-2,686	,011

a. Profession = Industrial worker
b. Dependent Variable: Stai υποκλίμακα 2

The only variable toenter the regression model is "If yes, how much?" (Table 6.3.2.2.3.1). Model's total p-value is 0.011 (Table "ANOVA"), just as the one of "If yes, how much?" since it's the only variable in the model.

6.3.2.2.4 Public servant

TABLE 6.3.2.2.4.1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	177,223	1	177,223	7,057	,009[c]
	Residual	4821,499	192	25,112		
	Total	4998,722	193			

a. Profession = Public servant

b. Dependent Variable: Stai υποκλίμακα 2

c. Predictors: (Constant), Degree

TABLE 6.3.2.2.4.2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	43,112	,375		115,102	,000
	Degree	-3,578	1,347	-,188	-2,657	,009

a. Profession = Public servant

b. Dependent Variable: Stai υποκλίμακα 2

The only variable entering the regression model is "Degree" (Table 6.3.2.2.4.1). Model's total p-value is 0.009 (Table "ANOVA"), just as the one of "Degree" since it's the only variable in the model.

6.3.2.2.5 Farmer

No variables were found to be statistically significant for farmers in the second subscale.

CHAPTER 7: CORRESPONDENCE ANALYSIS

The purpose of this research is, as mentioned above, to find out the factors that affect every profession in Anxiety and general Quality of Life. The variables which are statistically significant have already been identified, so the aim of this chapter is the creation of a profile of the subjects through correspondence analysis. In these profiles there will be an attempt to discover relations between the questionnaires' total scores and the subjects' professions.

Correspondence analysis can be applied only to categorical data so the continuous variables of total scores need to be transformed into categorical ones. There will be three levels in them; the first with the lowest 25% of the data, the second with the middle 50% of them and the third with the highest 25% of them (if given in ascending order). To proceed to the transformation their 25th and 75th percentiles must be found.

TABLE 7.1

Percentiles

		Percentiles	
		25	75
Weighted Average(Definition 1)	Hamilton Rating Scale for Depression Total Scores	5,00	15,00
	STAI Total Scores	82,00	94,00
	Stai subscale 1	41,00	50,00
	Stai subscale 2	39,00	46,00
	Scale1	20,00	27,00
	Scale2	9,00	14,00
	Scale3	15,00	24,00
	Scale4	16,00	20,00
	Scale5	4,00	7,00
	EQ-5D-5L total scores	7,00	11,00
	15D total scores	25,00	33,00
	GHQ total scores	20,00	25,00

The above percentiles are going to be used to transform the total scores into categorical variables as given below.

TABLE 7.2

hamilton	Hamilton_ total_cat	STAItot	Stai_total_cat	staisub1	Stai_sub1_cat	staisub2	Stai_sub2_cat
≤ 5	1	≤ 82	1	≤ 41	1	≤ 39	1
>5 - <15	2	>82 - <94	2	>41 - <50	2	>39 - <46	2
≥ 15	3	≥ 94	3	≥ 50	3	≥ 46	3

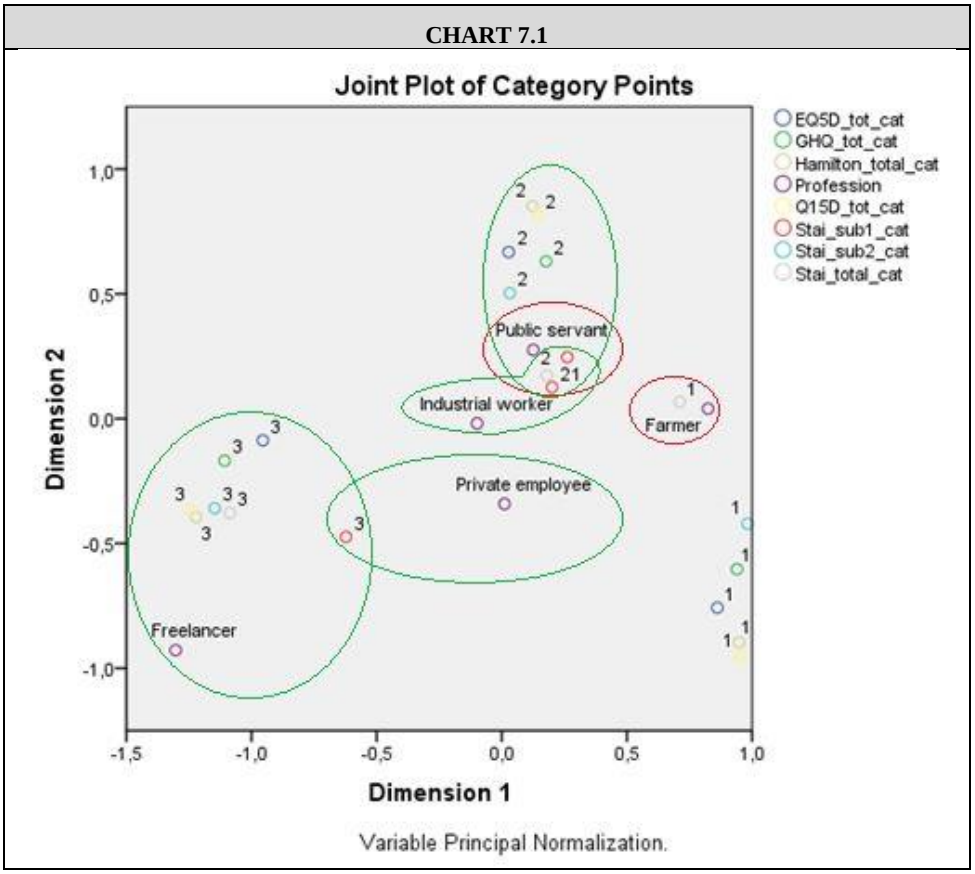
TABLE 7.3									
Scale1	Scale1_cat	Scale2	Scale2_cat	Scale3	Scale3_cat	Scale4	Scale4_cat	Scale5	Scale5_cat
≤ 20	1	≤ 9	1	≤ 15	1	≤ 16	1	≤ 4	1
>20 - <27	2	>9 - <14	2	>15 - <24	2	>16 - <20	2	>4 - <7	2
≥ 27	3	≥ 14	3	≥ 24	3	≥ 20	3	≥ 7	3

TABLE 7.4					
GHQ_total_scores	GHQ_tot_cat	EQ5L_total_scores	EQ5D_tot_cat	Q15D_total_scores	Q15D_tot_cat
≤ 20	1	≤ 7	1	≤ 25	1
>20 - <25	2	>7 - <11	2	>25 - <33	2
≥ 25	3	≥ 11	3	≥ 33	3

The correspondence analysis is about to follow. All questionnaires are going to be examined together except WAYS' scales, which are going to be examined on their own. Relations that seem to be stronger are going to be represented with red color circles and possible relationships with green color circles.

7.1 Questionnaires Correspondence Analysis

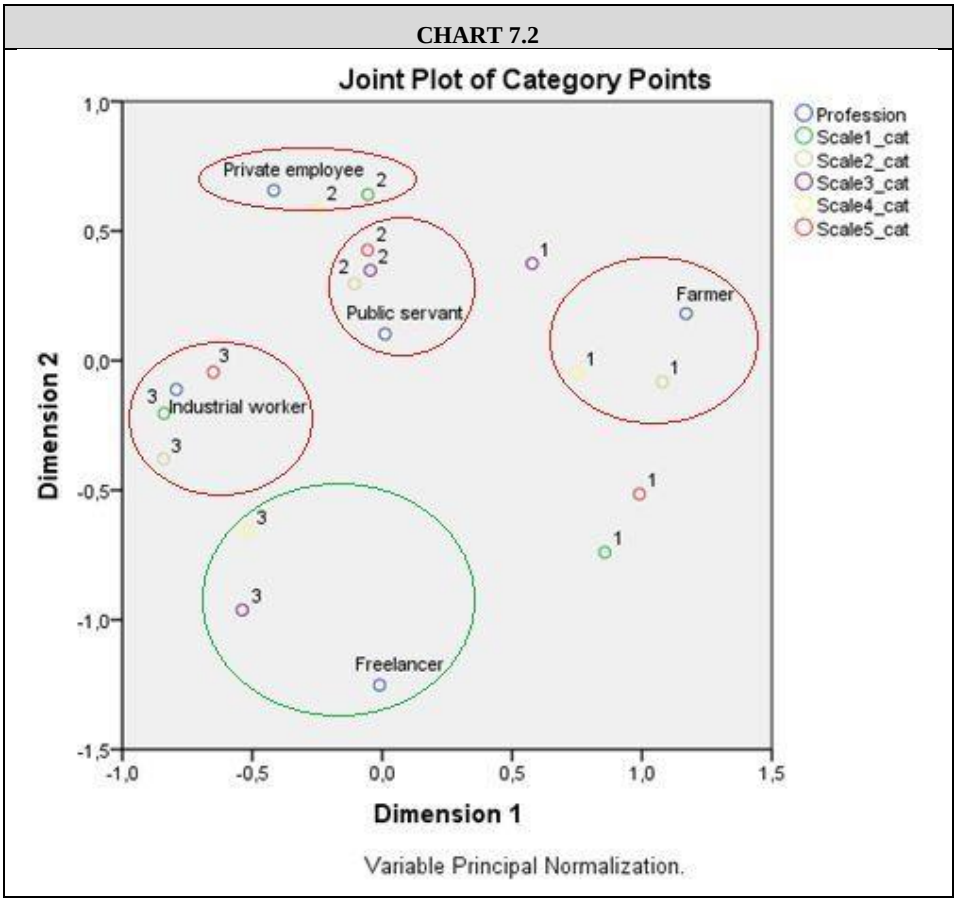
CHART 7.1



Public servants are strongly associated with the level 2 of STAI's total score and both levels 1 and 2 of its subscale 1, while they are closer to all the levels 2 of the other questionnaires' total scores. Farmers are associated with STAI's total score's level 1 and industrial workers are closer to level 2 of STAI's total score and both levels 1 and 2 of STAI's subscale 1. Private employees are kind of closer to level 3 of STAI's subscale 1 total score, while they seem to be almost equally distant from all the other levels. Freelancers are most probably associated with levels 3 of all the questionnaires' and their subscales' total score (Chart 7.1).

7.2 WAYS' Scales Correspondence Analysis

CHART 7.2



Private employees are most probably associated with level 2 of both scales 4 and 1, while they are pretty close to all the other levels 2. Public servants are really close to level 2 of scales 2, 3 and 5, while they are pretty close to level 2 of scales 4 and 1 and level 1 of scale 3. Industrial workers are associated with level 3 of scales 1, 5 and 4, while farmers with level 1 of scales 2 and 4. Freelancers are closer to level 3 of scales 3 and 4, but they don't really seem to be associated with any of those levels (Chart 7.2).

CHAPTER 8: CONCLUSIONS

As already mentioned, the purpose of this study was to assess the levels of anxiety and quality of life in Greece -particularly their levels in several professions- to find out which factors affect those levels and to correlate the levels of the questionnaires' total scores with those professions.

Our sample is a convenience sample that cannot be considered representative of the country's total population. It consists mainly of men (83.11%) and people of all ages took part (from 22 to 58 with average age 39.44 years). Most of them are married (67%) and their number of kids ranges from none to two (no kids 42.7%, one 12.5% and two 39.6%). It consists of Greek citizens (99.4%) and only a few of them have at least one degree (9.1%), while obviously even fewer have more than one (5%). Nearly one third of the sample consists of smokers (36.6%), while there are only a few that are currently using drugs (4.7%) or used to do so in the past (5%). Many of them work out (39.9%), mainly two or three times a week (13.9% and 16.3% respectively). Most of them have moderate or severe satisfaction from their work (43.8% and 35.7% respectively) and they are working from 1 to 34 years, averaging 14.63 years of work. More than one half of the sample consists of public servants (53.7%), while all the other professions have similar frequencies (freelancers 11.6%, private employees 12.5%, industrial workers 10.8% and farmers 11.4%).

Normality tests for all questionnaires' total scores were found to reject the normality hypothesis so all the first tests were non-parametric. From these tests the subjects' professions were found to affect all questionnaires' total scores (and almost all subscales of WAYS), while the variable working out was found to be a statistically significant factor to all total scores. Degree is a factor that affects all QoL questionnaires and most of the scales (and subscales) about anxiety, as well as the satisfaction the subjects are having from their work. Some subscales of WAYS are also affected by gender, second degree, marital status and how many times the subjects tend to work out every week. From QoL questionnaires GHQ-12 and 15D appear to be both affected by satisfaction from work and working out (plus degree and profession as already mentioned), while EQ-5D-5L is affected by more factors, probably because it has only five questions and can't focus in some particular factors like the others.

TABLE 8.1

	HAM-D	**STAI**
Gender		
Age		
Marital status		
Number of children		
Degree	$\mu_{yes} \neq \mu_{no}$	
Second degree		
Satisfied from work	$\mu_{moderate} \neq \mu_{extremely}$ $\mu_{moderate} \neq \mu_{severe}$	
Years of service		
Smoking		
Working out	$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$
If yes, how much?		$\mu_0 \neq \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ *no significant differences between levels*

Using drugs today		
Drug user in the past		
Profession	$\mu_{freelancer} \neq \mu_{farmer}$ $\mu_{freelancer} \neq \mu_{pr.employ}$ $\mu_{freelancer} \neq \mu_{pub.servant}$ $\mu_{freelancer} \neq \mu_{ind.worker}$	$\mu_{farmer} \neq \mu_{freelancer}$ $\mu_{farmer} \neq \mu_{pr.employ}$ $\mu_{farmer} \neq \mu_{pub.servant}$ $\mu_{farmer} \neq \mu_{ind.worker}$ $\mu_{freelancer} \neq \mu_{ind.worker}$ $\mu_{freelancer} \neq \mu_{pub.servant}$

TABLE 8.2

WAYS:	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
Gender		$\mu_{men} \neq \mu_{women}$	$\mu_{men} \neq \mu_{women}$		
Age					
Marital status	$\mu_{divorced} \neq \mu_{single}$ $\mu_{divorced} \neq \mu_{married}$				
Number of children					
Degree	$\mu_{yes} \neq \mu_{no}$		$\mu_{yes} \neq \mu_{no}$		
Second degree	$\mu_{yes} \neq \mu_{no}$		$\mu_{yes} \neq \mu_{no}$		
Satisfied from work	$\mu_{mild} \neq \mu_{extremely}$ $\mu_{moderate} \neq \mu_{extremely}$ $\mu_{severe} \neq \mu_{extremely}$				
Years of service					
Smoking					
Working out			$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$
If yes, how much?	$\mu_{twice} \neq \mu_{five}$	$\mu_0 \neq \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ *no significant differences between levels*			
Using drugs today					
Drug user in the past					
Profession	$\mu_{farmer} \neq \mu_{ind.worker}$ $\mu_{freelancer} \neq \mu_{ind.worker}$	$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5$ *no significant differences between levels*	$\mu_{farmer} \neq \mu_{freelancer}$ $\mu_{farmer} \neq \mu_{pub.servant}$ $\mu_{farmer} \neq \mu_{ind.worker}$	$\mu_{farmer} \neq \mu_{freelancer}$ $\mu_{farmer} \neq \mu_{pr.employ}$ $\mu_{farmer} \neq \mu_{pub.servant}$ $\mu_{farmer} \neq \mu_{ind.worker}$	

TABLE 8.3

	GHQ-12	EQ-5D-5L	15D
Gender			
Age		$\rho_s \neq 0$	
Marital status			
Number of children			
Degree	$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$
Second degree		$\mu_{yes} \neq \mu_{no}$	
Satisfied from work	$\mu_{moderate} \neq \mu_{extremely}$	$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5$ *no significant differences between levels*	$\mu_{moderate} \neq \mu_{extremely}$ $\mu_{moderate} \neq \mu_{severe}$
Years of service			
Smoking			
Working out	$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$	$\mu_{yes} \neq \mu_{no}$
If yes, how much?			
Using drugs today			
Drug user in the past			
Profession	$\mu_{freelancer} \neq \mu_{farmer}$ $\mu_{freelancer} \neq \mu_{pr.employ}$ $\mu_{freelancer} \neq \mu_{pub.servant}$ $\mu_{freelancer} \neq \mu_{ind.worker}$	$\mu_{freelancer} \neq \mu_{pr.employ}$ $\mu_{freelancer} \neq \mu_{pub.servant}$ $\mu_{freelancer} \neq \mu_{farmer}$	$\mu_{freelancer} \neq \mu_{farmer}$ $\mu_{freelancer} \neq \mu_{pr.employ}$ $\mu_{freelancer} \neq \mu_{pub.servant}$ $\mu_{freelancer} \neq \mu_{ind.worker}$

Regression analysis was applied in all questionnaires' total scores including in the models as independent all variables that were (statistically) significant in non-parametric tests. In HAM-D all the above factors were found to be significant, while in STAI, working out was left out of the best model, probably because it is highly correlated with how many

times the subjects are working out per week that entered the model. In WAYS every single one of its scales should be examined alone. In scale 5 working out was the only variable that was found to be significant and entered the regression model, while in scale 4 working out and profession both entered the regression model. In scale 2 gender, profession and how many times the subjects work out are found significant in non-parametric tests and only the first two entered the regression model. In scale 1 that marital status, degree, satisfied from work, second degree, how many times and professions were found to affect total scores, while only the first three entered the regression model. Scale's 3 only difference from scale 1 at first was that working out was found to be significant instead of how many times a week the subjects are doing so, while all variables entered the regression model except satisfaction from work. In GHQ-12 and 15D regression analysis showed that all the variables that mentioned in the previous paragraph entered the best model, while in EQ-5D-5L degree, second degree, satisfaction from work and profession entered the regression model and age and working out were left out.

TABLE 8.4

HAM-D	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Degree	✓					
Satisfied from work	✓				✓	
Working out	✓	✓		✓		
Profession	✓					
R_{adj}^2	0.197	0.143	-	0.118	0.029	-

TABLE 8.5

STAI	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Working out		✓				
If yes, how much?	✓			✓		
Profession	✓					
R_{adj}^2	0.195	0.104	-	0.086	-	-

TABLE 8.6

Scale 1	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Marital status	✓			✓	✓	✓
Degree	✓				✓	
Second degree			✓			
Satisfied from work	✓	✓			✓	✓
If yes, how much?						
Profession						
R_{adj}^2	0.088	0.195	0.079	0.279	0.067	0.224

TABLE 8.7

Scale 2	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Gender	✓				✓	
If yes, how much?						
Profession	✓					
R_{adj}^2	0.033	-	-	-	0.02	-

TABLE 8.8						
Scale 3	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Gender	✓					✓
Degree	✓	✓				✓
Second degree	✓				✓	
Satisfied from work						
Working out	✓		✓		✓	
Profession	✓					
R_{adj}^2	0.072	0.228	0.128	-	0.038	0.185

TABLE 8.9						
Scale 4	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Working out	✓		✓			
Profession	✓					
R_{adj}^2	0.041	-	0.071	-	-	-

TABLE 8.10						
Scale 5	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Working out	✓				✓	
R_{adj}^2	0.012	-	-	-	0.022	-

TABLE 8.11						
GHQ-12	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Degree	✓	✓			✓	
Satisfied from work	✓				✓	
Working out	✓		✓	✓		
Profession	✓					
R_{adj}^2	0.179	0.168	0.112	0.124	0.081	-

TABLE 8.12						
EQ-5D-5L	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Age					✓	✓
Degree	✓	✓			✓	
Second degree	✓					
Satisfied from work	✓				✓	
Working out				✓		
Profession	✓					
R_{adj}^2	0.137	0.252	-	0.137	0.087	0.158

TABLE 8.13						
15D	General	Freelancer	Private employee	Industrial worker	Public servant	Farmer
Degree	✓	✓				
Satisfied from work	✓				✓	
Working out	✓		✓	✓		
Profession	✓					
R_{adj}^2	0.172	0.134	0.079	0.192	0.046	-

In HAM-D is affected by freelancers seem to have different mean from all the other professions, while degree and working out also affect total score. There are also differences between those who have moderate satisfaction from their work and those who are severely or extremely satisfied from it. In STAI, farmers have different mean from all the other professions, while freelancers have different mean from industrial workers and public servants. The times subjects work out every week also affect total scores. Scale 1 of WAYS is associated with positive approach. It is affected from degree, marital status and satisfaction

from work. More specifically divorced subjects have different means from both singled and married and industrial workers different from both farmers and freelancers. In scale 2, which is associated with seeking social support, the significant variables are gender and profession. However there are no statistically significant differences between professions' means, only in total. In scale 3, which is associated with dreaming and wishing for god's help, the significant variables are gender, degree, second degree, working out and profession. More specifically farmers have different means from all of freelancers, public servants and industrial workers. In scale 4, which is associated with avoidance and escape, working out is significant and farmers have different means from all the other professions. In scale 5, which is associated with assertive problem solving, the only variable found to be significant is working out. In GHQ-12 freelancers seem to have different means from all the other professions and those with moderate satisfaction from their work different from those with extreme. In EQ-5D-5L freelancers have different means from all of private employees, public servants and farmers, while satisfaction from work levels are different in total with no significant differences between them. In 15D freelancers have different means from all the other professionals, while those with moderate satisfaction from their work have different means from both those with severe and extreme satisfaction.

The above don't answer all the purposes of the study however. The aim was to find differences in questionnaires' total scores between the different professions. That's why regression analysis was applied in every total score for every one of the professions. In freelancers the variables found to be significant are degree (WAYS-3, QoL quest.), working out (HAM-D, STAI) and satisfaction from work (WAYS-1). In private employees the significant ones are working out (WAYS-3&4, GHQ-12, 15D) and second degree (WAYS-1). In industrial workers working out (HAM-D, QoL quest.), how much working out (STAI) and marital status (WAYS-1). Among public servants the biggest numbers of variables was found. In particular there were satisfaction from work (HAM-D, WAYS-1, QoL quest.), degree (WAYS-1, GHQ-12, EQ-5D-5L), working out (WAYS-3&5), second degree (WAYS-3), marital status (WAYS-1), gender (WAYS-2) and age (EQ-5D-5L). Lastly in farmers satisfaction from work (WAYS-1), degree (WAYS-3), marital status (WAYS-1), gender (WAYS-3) and age (EQ-5D-5L) were found to be significant. From all the above can be understood that for freelancers' quality of life it is important whether they have a degree or not, while working out affects anxiety questionnaires, so this might be important for their psychology and the way they see themselves. Working out also affects private employees and industrial workers, while it also seems to affect public servants but not so much. Public servants also seem to be affected by whether they have a degree or not, mostly in their quality of life. However, the most important factor seems to be the satisfaction they have from their work. This affects both their quality of life and anxiety levels.

TABLE 8.14										
FREELANCERS	HAM-D	STAI	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	GHQ-12	EQ5D5L	15D
Gender										
Age										
Marital status										
Number of children										
Degree										
Second degree										
Satisfied from work										
Years of service										
Smoking										
Working out										
If yes, how much?										
Using drugs today										
Drug user in the past										
Profession										

TABLE 8.15										
PRIVATE EMPLOYEES	HAM-D	STAI	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	GHQ-12	EQ5D5L	15D
Gender										
Age										
Marital status										
Number of children										
Degree										
Second degree										
Satisfied from work										
Years of service										
Smoking										
Working out										
If yes, how much?										
Using drugs today										
Drug user in the past										
Profession										

TABLE 8.16										
INDUSTRIAL WORKERS	HAM-D	STAI	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	GHQ-12	EQ5D5L	15D
Gender										
Age										
Marital status										
Number of children										
Degree										
Second degree										
Satisfied from work										
Years of service										
Smoking										
Working out										
If yes, how much?										
Using drugs today										
Drug user in the past										
Profession										

TABLE 8.17										
PUBLIC SERVANTS	HAM-D	STAI	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	GHQ-12	EQ5D5L	15D
Gender										
Age										
Marital status										
Number of children										
Degree										
Second degree										
Satisfied from work										
Years of service										
Smoking										
Working out										
If yes, how much?										
Using drugs today										
Drug user in the past										
Profession										

TABLE 8.18										
FARMERS	HAM-D	STAI	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	GHQ-12	EQ5D5L	15D
Gender										
Age										
Marital status										
Number of children										
Degree										
Second degree										
Satisfied from work										
Years of service										
Smoking										
Working out										
If yes, how much?										
Using drugs today										
Drug user in the past										
Profession										

An important aspect of the study is to distinguish permanent from temporary anxiety. Professions associated with temporary anxiety means that anxiety could be due to their work and they might face situations in other aspects of their life much more differently (e.g. calmly, quicker or by giving less thought). On the contrary, professionals associated with permanent anxiety means that they face any problem in every aspect of their life the same way, with the same stress level. This kind of matters can be examined with the State-Trait Anxiety Inventory, whose total scores can be separated in two different subscales: S-Anxiety and T-Anxiety. The first corresponds on the anxiety levels of the subject "right now", whilst the second on the ones on a permanent basis. In this study S-Anxiety is "Subscale 1" and T-Anxiety is "Subscale 2". The results showed that both subscales are affected by profession. Specifically non-parametric tests showed that in subscale 1 farmers are different from any other profession, while in subscale 2 the same applies for both farmers and freelancers. Subscale 2 is also affected by degree, working out and how many times are the subjects working out every week. Regression analysis showed that all of those variables are statistically significant except working out in subscale 2, probably because it is highly

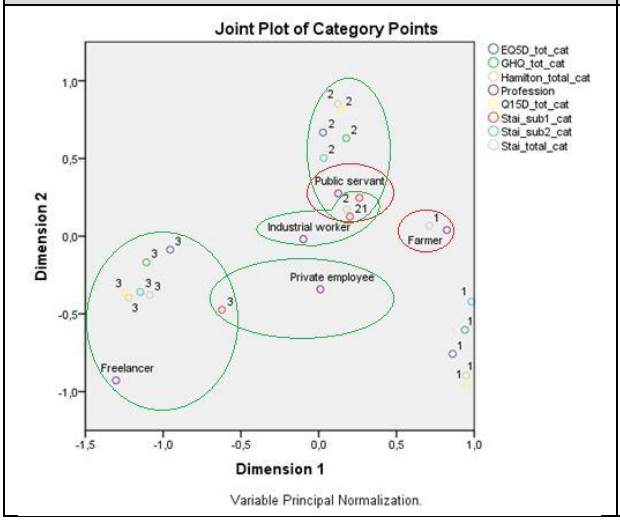
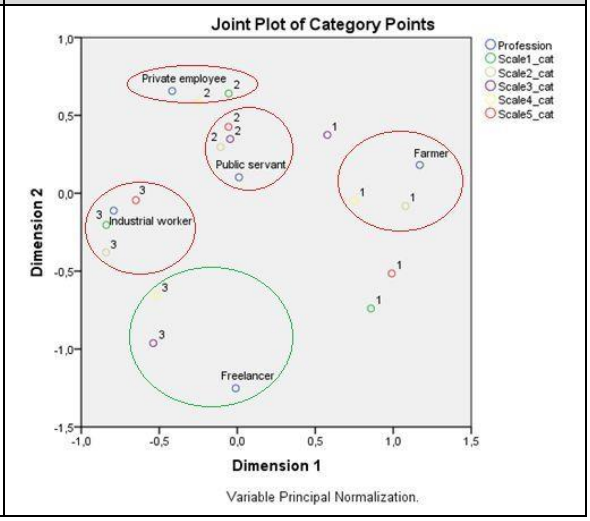
correlated with how many times is every subject doing so every week. Regression analysis could not be applied in every profession separately for subscale 1 since only "Profession" was statistically significant, but it could for subscale 2. The results showed that significant for permanent anxiety in freelancers and private employees were degree and how many times a week do the subjects work out. In industrial workers significant was only the number of times they work out, in public servants only the degree, while in farmers nothing was found to be significant.

TABLE 8.19				
	Subscale 1	**Regression for Subscale 1**	**Subscale 2**	**Regression for Subscale 2**
Gender				
Age				
Marital status				
Number of children				
Degree			$\mu_{yes} \neq \mu_{no}$	✓
Second degree				
Satisfied from work				
Years of service			$\mu_0 \neq \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ *no significant differences between levels*	
Smoking				
Working out			$\mu_{yes} \neq \mu_{no}$	
If yes, how much?			$\mu_0 \neq \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ *no significant differences between levels*	✓
Drugs today				
Drugs in the past				
Profession	$\mu_{farmer} \neq \mu_{freelancer}$ $\mu_{farmer} \neq \mu_{pr.employ}$ $\mu_{farmer} \neq \mu_{pub.servant}$ $\mu_{farmer} \neq \mu_{ind.worker}$	✓	$\mu_{farmer} \neq \mu_{freelancer}$ $\mu_{farmer} \neq \mu_{pr.employ}$ $\mu_{farmer} \neq \mu_{pub.servant}$ $\mu_{farmer} \neq \mu_{ind.worker}$ $\mu_{freelancer} \neq \mu_{pr.employ}$ $\mu_{freelancer} \neq \mu_{pub.servant}$ $\mu_{freelancer} \neq \mu_{ind.worker}$	✓

TABLE 8.20					
Subscale 2	**Freelancer**	**Private employee**	**Industrial worker**	**Public servant**	**Farmer**
Degree	✓	✓		✓	
If yes, how much?	✓	✓	✓		

Last but not least, we would like to examine how are those professions associated with the questionnaires' total scores. Ideally there would be relations connecting some of those professions with low or high scores in the questionnaires. To find these kind of connections between them multiple correspondence analysis was applied. First analysis was applied to all questionnaires except WAYS, where another correspondence analysis was applied. Results showed the public servants are strongly associated with medium scores of STAI and both low and medium scores of its subscale 1 (S-Anxiety), the one about temporary anxiety. Same applies for industrial workers but these connections are not so strong, while they are associated with high scores of scales 1, 2 and 5 of WAYS. Public servants are also associated with medium scores of all the other questionnaires, as long as medium scores of

scales 2, 3 and 5 of WAYS. Farmers are strongly associated with low scores of HAM-12 and low scores of scales 2 and 4 of WAYS. Private employees are associated with medium scores of scales 1 and 2 of WAYS and maybe with high scores of subscale 1 of STAI, while freelancers may be associated with high scores of all questionnaires, as well as STAI's subscales and scales 3 and 4 of WAYS.

CHART 8.1	CHART 8.2
	

The above mean that public servants' anxiety levels are medium, while they are also associated with medium and low scores of temporary anxiety. These lead to medium scores in QoL questionnaires as well. Industrial workers are associated with low and medium scores of temporary anxiety. Farmers are associated with low scores of HAM-D and low scores of WAYS scales related with search for social support and looking for avoidance/escape, so their work might be difficult and tiring, but their association with nature might lead to less anxiety. Private employees are associated with medium scores of WAYS scales about positive approach and search for social support and high scores in temporary anxiety. Lastly, freelancers are associated with high scores in all questionnaires and in scales that are associated with praying for god's help and looking for avoidance/escape, so we could claim that this profession leads to higher levels of anxiety, probably because of the pressure that comes with having their own business, especially in a country with so many problems in its' economy as Greece. Pressure and uncertainty about business' and country's future might be also related to this result. They are associated with higher scores in QoL questionnaires, which means that their quality of life seems to be worse than the other professionals. This is something which is expected to happen because of their higher anxiety levels. It becomes apparent that worrying or depression decreases the quality of life, and this can seen in the QoL questionnaires because they all have at least one question about the subject's psychological status.

APPENDIX

1.1 Hamilton Rating Scale for Depression (original)

Patient's Name
Date of Assessment
Instructions: for each item select the one "cue" which best characterizes the patient. Be sure to record the answers in the appropriate spaces (positions 0 through 4).

1 **DEPRESSED MOOD** *(sadness, hopeless, helpless, worthless)*
- 0 |__| Absent.
- 1 |__| These feeling states indicated only on questioning.
- 2 |__| These feeling states spontaneously reported verbally.
- 3 |__| Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.
- 4 |__| Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

2 **FEELINGS OF GUILT**
- 0 |__| Absent.
- 1 |__| Self reproach, feels he/she has let people down.
- 2 |__| Ideas of guilt or rumination over past errors or sinful deeds.
- 3 |__| Present illness is a punishment. Delusions of guilt.
- 4 |__| Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.

3 **SUICIDE**
- 0 |__| Absent.
- 1 |__| Feels life is not worth living.
- 2 |__| Wishes he/she were dead or any thoughts of possible death to self.
- 3 |__| Ideas or gestures of suicide.
- 4 |__| Attempts at suicide (any serious attempt rate 4).

4 **INSOMNIA: EARLY IN THE NIGHT**
- 0 |__| No difficulty falling asleep.
- 1 |__| Complains of occasional difficulty falling asleep, i.e. more than 1⁄2 hour.
- 2 |__| Complains of nightly difficulty falling asleep.

5 **INSOMNIA: MIDDLE OF THE NIGHT**
- 0 |__| No difficulty.
- 1 |__| Patient complains of being restless and disturbed during the night.
- 2 |__| Waking during the night – any getting out of bed rates 2 (except for purposes of voiding).

6 **INSOMNIA: EARLY HOURS OF THE MORNING**
- 0 |__| No difficulty.
- 1 |__| Waking in early hours of the morning but goes back to sleep.
- 2 |__| Unable to fall asleep again if he/she gets out of bed.

7 **WORK AND ACTIVITIES**
- 0 |__| No difficulty.
- 1 |__| Thoughts and feelings of incapacity, fatigue or weakness related to activities, work or hobbies.
- 2 |__| Loss of interest in activity, hobbies or work – either directly reported by the patient or indirect in listlessness, indecision and vacillation (feels he/she has to push self to work or activities).
- 3 |__| Decrease in actual time spent in activities or decrease in productivity. Rate 3 if the patient does not spend at least three hours a day in activities (job or hobbies) excluding routine chores.
- 4 |__| Stopped working because of present illness. Rate 4 if patient engages in no activities except routine chores, or if patient fails to perform routine chores unassisted.

8 **RETARDATION** (slowness of thought and speech, impaired ability to concentrate, decreased motor activity)

0 |__| Normal speech and thought.
1 |__| Slight retardation during the interview.
2 |__| Obvious retardation during the interview.
3 |__| Interview difficult.
4 |__| Complete stupor.

9 **AGITATION**
0 |__| None.
1 |__| Fidgetiness.
2 |__| Playing with hands, hair, etc.
3 |__| Moving about, can't sit still.
4 |__| Hand wringing, nail biting, hair-pulling, biting of lips.

10 **ANXIETY PSYCHIC**
0 |__| No difficulty.
1 |__| Subjective tension and irritability.
2 |__| Worrying about minor matters.
3 |__| Apprehensive attitude apparent in face or speech.
4 |__| Fears expressed without questioning.

11 **ANXIETY SOMATIC (physiological concomitants of anxiety) such as:**
gastro-intestinal – dry mouth, wind, indigestion, diarrhea, cramps, belching
cardio-vascular – palpitations, headaches
respiratory – hyperventilation, sighing
urinary frequency
sweating
0 |__| Absent.
1 |__| Mild.
2 |__| Moderate.
3 |__| Severe.
4 |__| Incapacitating.

12 **SOMATIC SYMPTOMS GASTRO-INTESTINAL**
0 |__| None.
1 |__| Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen.
2 |__| Difficulty eating without staff urging. Requests or requires laxatives or medication for bowels o medication for gastro-intestinal symptoms.

13 **GENERAL SOMATIC SYMPTOMS**
0 |__| None.
1 |__| Heaviness in limbs, back or head. Backaches, headaches, muscle aches. Loss of energy and fatigability.
2 |__| Any clear-cut symptom rates 2.

14 **GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)**
0 |__| Absent.
1 |__| Mild.
2 |__| Severe.

15 **HYPOCHONDRIASIS**
0 |__| Not present.
1 |__| Self-absorption (bodily).
2 |__| Preoccupation with health.
3 |__| Frequent complaints, requests for help, etc.
4 |__| Hypochondriacal delusions.

16 **LOSS OF WEIGHT** ***(RATE EITHER a OR b)***

a) According to the patient:
0 |__| No weight loss.
1 |__| Probable weight loss associated with present illness.
2 |__| Definite (according to patient) weight

b) According to weekly measurements:
0 |__| Less than 1 lb weight loss in week.
1 |__| Greater than 1 lb weight loss in week.
2 |__| Greater than 2 lb weight loss in week.
3 |__| Not assessed.

		loss.
	3 |__|	Not assessed.
17	**INSIGHT**	
	0 |__|	Acknowledges being depressed and ill.
	1 |__|	Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc.
	2 |__|	Denies being ill at all.

Total score: |__|__|

1.2 Hamilton Rating Scale for Depression -Greek version (translation)

	Not at all	Mild	Moderate	Severe	Extremely
1. ANXIETY : Concern, Vigilance, Waiting for the worst, Irratability	0	1	2	3	4
2. TENSION : Feeling tense, fatigue, difficulty in rest, terrified reactions, crying easy, fear, feeling anxious.	0	1	2	3	4
3. FEARS : for dark, strangers, big animals, traffic, crowd, being alone	0	1	2	3	4
4. INSOMNIA : Difficulty in sleeping, interrupted sleep, feeling tired after waking up, dreams/nightmares, night fears	0	1	2	3	4
5. INSIGHT : Difficulty in concentration, disturbances of memory	0	1	2	3	4
6. DEPRESSED MOOD (sadness, hopeless, helpless, worthless):					

Loss of interest, not satisfied from hobbies, depression waking up very early, ups and downs in mood during daytime	0	1	2	3	4
7. GENERAL SOMATIC SYMPTOMS (body) : Muscular pains, pain in the back, inflexibility, myoclonus, tics, gnashing of teeth, voice instability.	0	1	2	3	4
8. GENERAL SOMATIC SYMPTOMS (feelings, senses) : Tinnitus, blurred vision, cold-hot flushes, feeling of weakness, numbness.	0	1	2	3	4
9. CARDIOVASCULAR SYMPTOMS : Tachycardia, palpitations, chest pain, pulsating beat-vessels, feeling faint, arrhythmia.	0	1	2	3	4
10. RESPIRATORY SYMPTOMS : Feeling of pressure or tightening in the chest, feeling of choking, sighs, breathlessness.	0	1	2	3	4
11. SOMATIC SYMPTOMS GASTRO-INTESTINAL : Difficulty in swallowing, belching, indigestion, pain before and after the meal , heartburn, feeling of fullness, nausea, vomiting, sinking feeling, visceral mobility, gargling, relaxation of the bladder, weight loss, constipation.	0	1	2	3	4
12. GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances) : Urinary frequency or urgency to urinate, amenorrhea, menorrhagia, coldness, premature ejaculation, loss of sexual desire, inability.	0	1	2	3	4
13. SYMPTOMS OF AUTONOMOUS NERVOUS SYSTEM : Dry mouth, flushes, paleness, tendency to sweat, vertigo, tension headaches, lift hair.	0	1	2	3	4

2.1 The State-Trait Anxiety Inventory (original)

STAI

Your responses will be treated completely **confidentially**, and results will only be referred to in statistical form or anonymously.

Please read the following statements about how people feel **in general**. Circle the number that best describes how you generally feel. There are no right or wrong answers.

1 I feel pleasant

Almost never 1 2 3 4 5 6 7 Almost always

2 I feel nervous and restless

Almost never 1 2 3 4 5 6 7 Almost always

3 I feel satisfied with myself

Almost never 1 2 3 4 5 6 7 Almost always

4 I wish I could be as happy as others seem to be

Almost never 1 2 3 4 5 6 7 Almost always

5 I feel rested

Almost never 1 2 3 4 5 6 7 Almost always

6 I am 'calm, cool and collected'

Almost never 1 2 3 4 5 6 7 Almost always

7 I feel that difficulties are piling up so that I cannot overcome them

Almost never 1 2 3 4 5 6 7 Almost always

8 I worry too much over something that doesn't really matter

Almost never 1 2 3 4 5 6 7 Almost always

9 I am happy

Almost never 1 2 3 4 5 6 7 Almost always

10 I have disturbing thoughts

Almost never 1 2 3 4 5 6 7 Almost always

11 I lack self-confidence

Almost never 1 2 3 4 5 6 7 Almost always

12 I feel secure

Almost never 1 2 3 4 5 6 7 Almost always

13 I make decisions easily

Almost never 1 2 3 4 5 6 7 Almost always

14 I feel inadequate

Almost never 1 2 3 4 5 6 7 Almost always

15 I am content

Almost never 1 2 3 4 5 6 7 Almost always

16 Unimportant thoughts run through my mind and bother me

Almost never 1 2 3 4 5 6 7 Almost always

17 I take disappointments to heart and I can't put them out of my mind

Almost never 1 2 3 4 5 6 7 Almost always

18 I get in a state of tension or turmoil when I think about my recent concerns and interests

Almost never 1 2 3 4 5 6 7 Almost always

2.2 The State-Trait Anxiety Inventory – Greek version (translated)

	Not at all	Somehow	Moderate	Extremely
1. I feel calm.	1	2	3	4
2. I feel safe.	1	2	3	4
3. I feel an inner tension.	1	2	3	4
4. I have anxiety.	1	2	3	4
5. I feel comfortable.	1	2	3	4
6. I feel upset.	1	2	3	4
7. I worry about possible mishaps.	1	2	3	4
8. I feel rested.	1	2	3	4
9. I feel anxious.	1	2	3	4
10. I feel convenient.	1	2	3	4
11. I feel confident.	1	2	3	4
12. I feel nervous.	1	2	3	4
13. I feel quiet.	1	2	3	4
14. I feel stimulated.	1	2	3	4
15. I am relaxed.	1	2	3	4
16. I am satisfied.	1	2	3	4
17. I am worried.	1	2	3	4
18. I feel fluster and trepidation.	1	2	3	4
19. I feel tense.	1	2	3	4
20. I feel pleasant.	1	2	3	4
21. I feel pleasant.	1	2	3	4
22. I get tired easily.	1	2	3	4
23. I am in constant agony.	1	2	3	4

24. I wish I could be so happy as the others seem to be.	1	2	3	4
25. Stand behind in my work because I cannot decide fast enough.	1	2	3	4
26. I feel rested.	1	2	3	4
27. I am calm, cool and concentrated.	1	2	3	4
28. I feel that difficulties accumulate and I cannot get over them.	1	2	3	4
29. I worry too much about something that does not really matter.	1	2	3	4
30. I am in constant tension.	1	2	3	4
31. I tend to see things difficult.	1	2	3	4
32. I lack of self-confidence.	1	2	3	4
33. I feel safe.	1	2	3	4
34. I try to avoid dealing with a crisis or a difficult situation.	1	2	3	4
35. I am overstimulated.	1	2	3	4
36. I am satisfied.	1	2	3	4
37. Some insignificant thought goes through my mind and bothers me.	1	2	3	4
38. I take disappointments so very seriously that I can't get them off my mind.	1	2	3	4
39. I am a firm character.	1	2	3	4
40. I come to a tension or turmoil situation when I think of my current difficulties and interests.	1	2	3	4

3.1 Ways of Coping (Revised)

WAYS OF COPING was designed by Lazarus and Folkman (University of California, San Francisco) as a measure of coping processes used **in a particular stressful encounter (**and not of coping style or traits).

Instructions: Identify a stressful encounter that occurred recently, where it took place and what happened Next, read each item below and indicate, by using the following rating scale, to what extent you used it in the situation you have just described.

Not Used	Used Somewhat	Used Quite A Bit	Used a Great Deal
0	1	2	3

_____ 1. Just concentrated on what I had to do next – the next step.
_____ 2. I tried to analyze the problem in order to understand it better.
_____ 3. Turned to work or substitute activity to take my mind off things.
_____ 4. I felt that time would make a difference – the only thing to do was to wait.
_____ 5. Bargained or compromised to get something positive from the situation.
_____ 6. I did something which I didn't think would work, but at least I was doing something.
_____ 7. Tried to get the person responsible to change his or her mind.
_____ 8. Talked to someone to find out more about the situation.
_____ 9. Criticized or lectured myself.
_____ 10. Tried not to burn my bridges, but leave things open somewhat.
_____ 11. Hoped a miracle would happen.
_____ 12. Went along with fate; sometimes I just have bad luck.
_____ 13. Went on as if nothing had happened.
_____ 14. I tried to keep my feelings to myself.
_____ 15. Looked for the silver lining, so to speak; tried to look on the bright side of things.
_____ 16. Slept more than usual.
_____ 17. I expressed anger to the person(s) who caused the problem.
_____ 18. Accepted sympathy and understanding from someone.
_____ 19. I told myself things that helped me to feel better.
_____ 20. I was inspired to do something creative.
_____ 21. Tried to forget the whole thing.
_____ 22. I got professional help.
_____ 23. Changed or grew as a person in a good way.
_____ 24. I waited to see what would happen before doing anything.
_____ 25. I apologized or did something to make up.
_____ 26. I made a plan of action and followed it.
_____ 27. I accepted the next best thing to what I wanted.
_____ 28. I let my feelings out somehow.
_____ 29. Realized I brought the problem on myself.
_____ 30. I came out of the experience better than when I went in.
_____ 31. Talked to someone who could do something concrete about the problem.
_____ 32. Got away from it for a while; tried to rest or take a vacation.
_____ 33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.
_____ 34. Took a big chance or did something very risky.
_____ 35. I tried not to act too hastily or follow my first hunch.
_____ 36. Found new faith.
_____ 37. Maintained my pride and kept a stiff upper lip.
_____ 38. Rediscovered what is important in life.
_____ 39. Changed something so things would turn out all right.
_____ 40. Avoided being with people in general.
_____ 41. Didn't let it get to me; refused to think too much about it.
_____ 42. I asked a relative or friend I respected for advice.
_____ 43. Kept others from knowing how bad things were.
_____ 44. Made light of the situation; refused to get too serious about it.
_____ 45. Talked to someone about how I was feeling.
_____ 46. Stood my ground and fought for what I wanted.
_____ 47. Took it out on other people.
_____ 48. Drew on my past experiences; I was in a similar situation before.
_____ 49. I knew what had to be done, so I doubled my efforts to make things work.
_____ 50. Refused to believe that it had happened.

_____ 51. I made a promise to myself that things would be different next time.
_____ 52. Came up with a couple of different solutions to the problem.
_____ 53. Accepted it, since nothing could be done.
_____ 54. I tried to keep my feelings from interfering with other things too much.
_____ 55. Wished that I could change what had happened or how I felt.
_____ 56. I changed something about myself.
_____ 57. I daydreamed or imagined a better time or place than the one I was in.
_____ 58. Wished that the situation would go away or somehow be over with.
_____ 59. Had fantasies or wishes about how things might turn out.
_____ 60. I prayed.
_____ 61. I prepared myself for the worst.
_____ 62. I went over in my mind what I would say or do.
_____ 63. I thought about how a person I admire would handle this situation and used that as a model.
_____ 64. I tried to see things from the other person's point of view.
_____ 65. I reminded myself how much worse things could be.
_____ 66. I jogged or exercised.

Scoring: To determine the predominant methods you used for coping, calculate your total score for each of the subscales below. Do this by summing the item scores noted for each scale.

Scale 1: Confrontive coping

46. Stood my ground and fought for what I wanted _____
7. Tried to get the person responsible to change his or her mind _____
17. I expressed anger to the person(s) who caused the problem _____
28. I let my feelings out somehow _____
34. Took a big chance or did something very risky_____
6. I did something which I didn't think would work, but at leastI was doing something _____
Total for Scale 1 _____

Scale 2: Distancing

44. Made light of the situation; refused to get too serious about it _____
13. Went on as if nothing had happened _____
41. Didn't let it get to me; refused to think too much about it _____
21. Tried to forget the whole thing _____
15. Looked for the silver lining, so to speak; tried to look on the bright side of things _____
12. Went along with fate; sometimes I just have bad luck _____
Total for Scale 2 _____

Scale 3: Self-controlling

14. I tried to keep my feelings to myself _____
43. Kept others from knowing how bad things were _____
10. Tried not to burn my bridges, but leave things open somewhat _____
35. I tried not to act too hastily or follow my first hunch _____
54. I tried to keep my feelings from interfering with other things too much _____
63. I thought about how a person I admire would handle this situation and used that as a model _____

Total for Scale 3 _____

Scale 4: Seeking social support
8. Talked to someone to find out more about the situation _____
31. Talked to someone who could do something concrete about the problem _____
42. I asked a relative or friend I respected for advice _____
45. Talked to someone about how I was feeling _____
18. Accepted sympathy and understanding from someone _____
22. I got professional help _____
Total for Scale 4 _____

Scale 5: Accepting responsibility
9. Criticized or lectured myself _____
29. Realized I brought the problem on myself _____
51. I made a promise to myself that things would be different next time _____
25. I apologized or did something to make up _____
Total for Scale 5 _____

Scale 6: Escape-Avoidance
58. Wished that the situation would go away or somehow be over with _____
11. Hoped a miracle would happen _____
59. Had fantasies or wishes about how things might turn out _____
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication _____
40. Avoided being with people in general _____
50. Refused to believe that it had happened _____
47. Took it out on other people _____
16. Slept more than usual _____
Total for Scale 6 _____

Scale 7: Planful problem-solving _____
49. I knew what had to be done, so I doubled my efforts to make things work _____
26. I made a plan of action and followed it _____
1. Just concentrated on what I had to do next – the next step _____
39. Changed something so things would turn out all right _____
48. Drew on my past experiences; I was in a similar situation before _____
52. Came up wit a couple of different solutions to the problem _____
Total for Scale 7 _____

Scale 8: Positive reappraisal
23. Changed or grew as a person in a good way _____
30. I came out of the experience better than when I went in _____
36. Found new faith _____
38. Rediscovered what is important in life _____
60. I prayed _____
56. I changed something about myself _____
20. I was inspired to do something creative _____
Total for Scale 8 _____

3.2 Ways of Coping - Greek version (translated)

	Never	Rarely	Sometimes	A lot
1. I tried to analyze the problem in order to understand it better	0	1	2	3
2. I tried to forget by working or doing something else	0	1	2	3
3. I thought that time would change things and just waited	0	1	2	3
4. Compromised to accomplish something positive from the situation	0	1	2	3
5. Talked to someone to help me understand more about the situation	0	1	2	3
6. Criticized or I classed myself	0	1	2	3
7. Hoped for a miracle	0	1	2	3
8. I was accepting my fate	0	1	2	3
9. Continued as if nothing was wrong	0	1	2	3
10. Tried to keep my feelings to myself	0	1	2	3
11. Tried to see the positive side of things	0	1	2	3
12. I was expressing my anger at the person who created the problem	0	1	2	3
13. I was accepting the sympathy and understanding around me	0	1	2	3
14. Inspired to do something creative	0	1	2	3
15. I was trying to forget the whole situation	0	1	2	3
16. I was thinking that my problems would make me more mature	0	1	2	3
17. I waited to see what would happen before I do anything	0	1	2	3
18. I let my emotions erupt somehow	0	1	2	3
19. Came out of this experience better	0	1	2	3
20. I was talking with someone who could do something specific for me	0	1	2	3
21. Dared something very risky	0	1	2	3
22. Found solace in my faith in God	0	1	2	3
23. I was discovering again what is important in life	0	1	2	3
24. I was changing something to make things go well	0	1	2	3
25. Asked the advice of a relative or a friend I respect	0	1	2	3
26. Tried to ease the situation, not to take it too seriously	0	1	2	3
27. Talked to someone about how I feel	0	1	2	3
28. I was stubborn and I was fighting to achieve what I wanted	0	1	2	3
29. I was breaking out to others	0	1	2	3
30. I was based on my previous experience. I was in similar situations before.	0	1	2	3
31. I knew what had to be done so I doubled my efforts in order to achieve it	0	1	2	3
32. I found one to two different solutions to the problem	0	1	2	3
33. I wish I could change what had happened or how I	0	1	2	3

felt				
34. I dreamt or imagined a better place or a better time than I was right then	0	1	2	3
35. I was hoping that the situation could disappear or imagined that I had somehow got out of it	0	1	2	3
36. Imagined how things could change	0	1	2	3
37. I was praying	0	1	2	3
38. I was reminding myself how much worse thing could be	0	1	2	3

Scales	Questions	Total Scores for Scales
Scale 1	1, 11, 14, 16, 19, 23, 24, 30, 31, 32, 38	
Scale 2	5, 6, 18, 20, 25, 27	
Scale 3	7, 13, 22, 33, 34, 35, 36, 37	
Scale 4	2, 3, 4, 8, 9, 10, 15, 17, 26	
Scale 5	12, 21, 28, 29	

4. General Health Questionnaire (Short-Form) – 12

1. Been able to concentrate on what you‘re doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2. Lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3. Felt you were playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
4. Felt capable of making decisions about things?	More so than usual	Same as usual	Less than usual	Much less capable
5. Felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6. Felt you couldn’t overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7. Been able to enjoy normal day-to-day activities?	More so than usual	Same as usual	Less than usual	Much less than usual
8. Been able to face up to your problems?	More so than usual	Same as usual	Less than usual	Much less able
9. Been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
10. Been losing confidence to yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
11. Been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
12. Been feeling reasonably happy, all things considered?	More so than usual	About same as usual	Less than usual	Much less than usual

5. EQ-5D-5L

Under each heading, please tick the ONE box that best describes your health TODAY.

MOBILITY

I have no problems in walking about ☐
I have slight problems in walking about ☐
I have moderate problems in walking about ☐
I have severe problems in walking about ☐
I am unable to walk about ☐

SELF-CARE

I have no problems washing or dressing myself ☐
I have slight problems washing or dressing myself ☐
I have moderate problems washing or dressing myself ☐
I have severe problems washing or dressing myself ☐
I am unable to wash or dress myself ☐

USUAL ACTIVITIES *(e.g. work, study, housework, family or leisure activities)*

I have no problems doing my usual activities ☐
I have slight problems doing my usual activities ☐
I have moderate problems doing my usual activities ☐
I have severe problems doing my usual activities ☐
I am unable to do my usual activities ☐

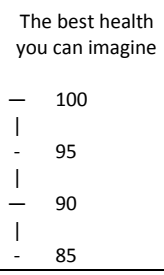
PAIN / DISCOMFORT

I have no pain or discomfort ☐
I have slight pain or discomfort ☐
I have moderate pain or discomfort ☐
I have severe pain or discomfort ☐
I have extreme pain or discomfort ☐

ANXIETY / DEPRESSION

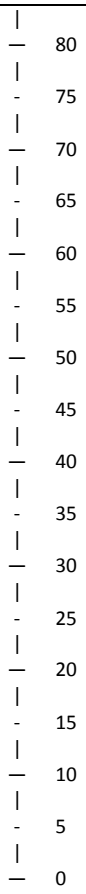
I am not anxious or depressed ☐
I am slightly anxious or depressed ☐
I am moderately anxious or depressed ☐
I am severely anxious or depressed ☐
I am extremely anxious or depressed ☐

- We would like to know how good or bad your health is TODAY.
- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.
  0 means the worst health you can imagine.



- Mark an X on the scale to indicate how your health is TODAY.
- Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY = ☐



6. 15D

QUALITY OF LIFE QUESTIONNAIRE (15D©)

Please read through all the alternative responses to each question before placing a cross (x) against the alternative which best describes **your present health status**. Continue through all 15 questions in this manner, giving only **one** answer to each.

QUESTION 1. MOBILITY

1 ( ) I am able to walk normally (without difficulty) indoors, outdoors and on stairs.
2 ( ) I am able to walk without difficulty indoors, but outdoors and/or on stairs I have slight difficulties.
3 ( ) I am able to walk without help indoors (with or without an appliance), but outdoors and/or on stairs only with considerable difficulty or with help from others.
4 ( ) I am able to walk indoors only with help from others.
5 ( ) I am completely bed-ridden and unable to move about.

QUESTION 2. VISION

1 ( ) I see normally, i.e. I can read newspapers and TV text without difficulty (with or without glasses).
2 ( ) I can read papers and/or TV text with slight difficulty (with or without glasses).
3 ( ) I can read papers and/or TV text with considerable difficulty (with or without glasses).
4 ( ) I cannot read papers or TV text either with glasses or without, but I can see enough to walk about without guidance.
5 ( ) I cannot see enough to walk about without a guide, i.e. I am almost or completely blind.

QUESTION 3. HEARING
1 ( ) I can hear normally, i.e. normal speech (with or without a hearing aid).
2 ( ) I hear normal speech with a little difficulty.
3 ( ) I hear normal speech with considerable difficulty; in conversation I need voices to be louder than normal.
4 ( ) I hear even loud voices poorly; I am almost deaf.
5 ( ) I am completely deaf.

QUESTION 4. BREATHING
1 ( ) I am able to breathe normally, i.e. with no shortness of breath or other breathing difficulty.
2 ( ) I have shortness of breath during heavy work or sports, or when walking briskly on flat ground or slightly uphill.
3 ( ) I have shortness of breath when walking on flat ground at the same speed as others my age.
4 ( ) I get shortness of breath even after light activity, e.g. washing or dressing myself.
5 ( ) I have breathing difficulties almost all the time, even when resting.

QUESTION 5. SLEEPING
1 ( ) I am able to sleep normally, i.e. I have no problems with sleeping.
2 ( ) I have slight problems with sleeping, e.g. difficulty in falling asleep, or sometimes waking at night.
3 ( ) I have moderate problems with sleeping, e.g. disturbed sleep, or feeling I have not slept enough.
4 ( ) I have great problems with sleeping, e.g. having to use sleeping pills often or routinely, or usually waking at night and/or too early in the morning.
5 ( ) I suffer severe sleeplessness, e.g. sleep is almost impossible even with full use of sleeping pills, or staying awake most of the night.

QUESTION 6. EATING
1 ( ) I am able to eat normally, i.e. with no help from others.
2 ( ) I am able to eat by myself with minor difficulty (e.g. slowly, clumsily, shakily, or with special appliances).
3 ( ) I need some help from another person in eating.
4 ( ) I am unable to eat by myself at all, so I must be fed by another person.
5 ( ) I am unable to eat at all, so I am fed either by tube or intravenously.

QUESTION 7. SPEECH
1 ( ) I am able to speak normally, i.e. clearly, audibly and fluently.
2 ( ) I have slight speech difficulties, e.g. occasional fumbling for words, mumbling, or changes of pitch.
3 ( ) I can make myself understood, but my speech is e.g. disjointed, faltering, stuttering or stammering.
4 ( ) Most people have great difficulty understanding my speech.
5 ( ) I can only make myself understood by gestures.

QUESTION 8. ELIMINATION
1 ( ) My bladder and bowel work normally and without problems.
2 ( ) I have slight problems with my bladder and/or bowel function, e.g. difficulties with urination, or loose or hard bowels.
3 ( ) I have marked problems with my bladder and/or bowel function, e.g. occasional 'accidents',

or severe constipation or diarrhea.

4 ( ) I have serious problems with my bladder and/or bowel function, e.g. routine 'accidents', or need of catheterization or enemas.

5 ( ) I have no control over my bladder and/or bowel function.

QUESTION 9. USUAL ACTIVITIES

1 ( ) I am able to perform my usual activities (e.g. employment, studying, housework, free-time activities) without difficulty.

2 ( ) I am able to perform my usual activities slightly less effectively or with minor difficulty.

3 ( ) I am able to perform my usual activities much less effectively, with considerable difficulty, or not completely.

4 ( ) I can only manage a small proportion of my previously usual activities.

5 ( ) I am unable to manage any of my previously usual activities.

QUESTION 10. MENTAL FUNCTION

1 ( ) I am able to think clearly and logically, and my memory functions well

2 ( ) I have slight difficulties in thinking clearly and logically, or my memory sometimes fails me.

3 ( ) I have marked difficulties in thinking clearly and logically, or my memory is somewhat impaired.

4 ( ) I have great difficulties in thinking clearly and logically, or my memory is seriously impaired.

5 ( ) I am permanently confused and disoriented in place and time.

QUESTION 11. DISCOMFORT AND SYMPTOMS

1 ( ) I have no physical discomfort or symptoms, e.g. pain, ache, nausea, itching etc.

2 ( ) I have mild physical discomfort or symptoms, e.g. pain, ache, nausea, itching etc.

3 ( ) I have marked physical discomfort or symptoms, e.g. pain, ache, nausea, itching etc.

4 ( ) I have severe physical discomfort or symptoms, e.g. pain, ache, nausea, itching etc.

5 ( ) I have unbearable physical discomfort or symptoms, e.g. pain, ache, nausea, itching etc.

QUESTION 12. DEPRESSION

1 ( ) I do not feel at all sad, melancholic or depressed.

2 ( ) I feel slightly sad, melancholic or depressed.

3 ( ) I feel moderately sad, melancholic or depressed.

4 ( ) I feel very sad, melancholic or depressed.

5 ( ) I feel extremely sad, melancholic or depressed.

QUESTION 13. DISTRESS

1 ( ) I do not feel at all anxious, stressed or nervous.

2 ( ) I feel slightly anxious, stressed or nervous.

3 ( ) I feel moderately anxious, stressed or nervous.

4 ( ) I feel very anxious, stressed or nervous.

5 ( ) I feel extremely anxious, stressed or nervous.

QUESTION 14. VITALITY

1 ( ) I feel healthy and energetic.

2 ( ) I feel slightly weary, tired or feeble.

3 ( ) I feel moderately weary, tired or feeble.

4 ( ) I feel very weary, tired or feeble, almost exhausted.

5 ( ) I feel extremely weary, tired or feeble, totally exhausted.

QUESTION 15. SEXUAL ACTIVITY

1 ( ) My state of health has no adverse effect on my sexual activity.

2 ( ) My state of health has a slight effect on my sexual activity.

3 ( ) My state of health has a considerable effect on my sexual activity.

4 ( ) My state of health makes sexual activity almost impossible.

5 ( ) My state of health makes sexual activity impossible.

7. Usage of anxiety questionnaires for QoL questionnaires

7.1 GHQ-12

GHQ 12	HAMILTON	STAI
Been able to concentrate on what you‘re doing?		27 - I am calm, cool and concentrated
Lost much sleep over worry?	INSOMNIA	
Felt you were playing a useful part in things?	**ALL SAME LEVEL**	**ALL SAME LEVEL**
Felt capable of making decisions about things?	INSIGHT	
Felt constantly under strain?		30 - I am in constant tension
Felt you couldn’t overcome your difficulties?		28 - I feel that difficulties accumulate and I cannot get over them
Been able to enjoy normal day-to-day activities?		25 - Stand behind in my work because I cannot decide fast enough
Been able to face up to your problems?		34 - I try to avoid dealing with a crisis or a difficult situation
Been feeling unhappy and depressed?	DEPRESSED MOOD (sadness, hopeless, helpless, worthless)	
Been losing confidence to yourself?		32 - I lack of self-confidence
Been thinking of yourself as a worthless person?		40 - I come to a tension or turmoil situation when I think of my current difficulties and interests
Been feeling reasonably happy, all things considered?		36 - I am satisfied

7.2 EQ-5D-5L

EQ-5D-5L	HAMILTON	STAI
Mobility	**ALL SAME LEVEL**	**ALL SAME LEVEL**
Self-care	GENERAL SOMATIC SYMPTOMS (body)	
Usual activities		Stand behind in my work because I cannot decide fast enough
Pain/Discomfort		I feel comfortable
Anxiety/Depression	ANXIETY	

7.3 15D

15D	HAMILTON	STAI
Mobility	GENERAL SOMATIC SYMPTOMS (body)	
Vision	ALL SAME LEVEL	ALL SAME LEVEL
Hearing	ALL SAME LEVEL	ALL SAME LEVEL
Breathing	RESPIRATORY SYMPTOMS	
Sleeping	INSOMNIA	
Eating	SOMATIC SYMPTOMS GASTRO-INTESTINAL	
Speech	ALL SAME LEVEL	ALL SAME LEVEL
Elimination	GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)	
Usual activities		Stand behind in my work because I cannot decide fast enough
Mental function	INSIGHT	
Discomfort and symptoms		I feel comfortable
Depression	DEPRESSED MOOD (sadness, hopeless, helpless, worthless)	
Distress	TENSION	
Vitality		I get tired easily
Sexual activity	GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)	

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