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ΜΕΤΑΠΤΥΧΙΑΚΗ ΕΡΓΑΣΙΑ

Πιλοτική μελέτη στην Κρήτη διεθνούς έρευνας για τα μυοσκελετικά προβλήματα

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Εισαγωγή: Μετά τον επιτυχή έλεγχο θανατηφόρων επαγγελματικών εκθέσεων, το ενδιαφέρον των επιστημόνων στο δυτικό κόσμο στρέφεται στον έλεγχο των επαγγελματικών μυοσκελετικών διαταραχών που αποτελούν μείζονα αιτία αναπηρίας, χαμένων εργατοημερών και αυξημένης ζήτησης για υπηρεσίες υγείας. Η αδυναμία ταυτοποίησης μιας υποκείμενης παθολογίας σε πολλές από αυτές τις καταστάσεις και η μη ειδικότητα των συμπτωμάτων συνηγορούν υπέρ της υπόθεσης ότι ψυχολογικοί παράγοντες συμβάλλουν στην εμφάνισή τους. Υπάρχουν στοιχεία ότι ψυχοκοινωνικοί παράγοντες στην εργασία επιδρούν στην εμφάνιση μυοσκελετικών συμπτωμάτων, αλλά δεν υπάρχουν δεδομένα για τον ειδικότερο ρόλο κάθε ενός από αυτά.

Στόχος: Κύριος σκοπός της μελέτης ήταν να ολοκληρωθεί η πιλοτική φάση στην Κρήτη, μιας διεθνούς μελέτης για τα μυοσκελετικά προβλήματα και τη σχέση τους με το πολιτισμικό και ψυχοκοινωνικό περιβάλλον στην εργασία. Οι επί μέρους στόχοι ήταν: 1. να μεταφραστεί το ερωτηματολόγιο διεθνούς μελέτης από τα Αγγλικά στα Ελληνικά, 2. να αξιολογηθούν δύο μέθοδοι συμπλήρωσης του ερωτηματολογίου, δηλαδή μέσω προσωπικής συνέντευξης και μέσω χορήγησης αυτοσυμπληρούμενου ερωτηματολογίου και 3. να γίνει μια πρώτη εκτίμηση του επιπολασμού μυοσκελετικών διαταραχών στον υπό μελέτη πληθυσμό.

Μέθοδος: Ο πληθυσμός μελέτης ήταν 100 επαγγελματίες, 50 νοσηλευτές και 50 ταχυδρομικοί υπάλληλοι που ταξινομούν γράμματα με το χέρι. Οι μισοί από κάθε ομάδα συμπλήρωσαν ένα αυτοσυμπληρούμενο ερωτηματολόγιο και οι υπόλοιποι συμμετείχαν σε μια προσωπική δομημένη συνέντευξη.

Αποτελέσματα: Το τελικό δείγμα αποτέλεσαν 89 άτομα (Μ.Ο. ηλικίας 40.4 έτη). Τα συγκεκριμένα ποσοστά συμμετοχής για την προσωπική συνέντευξη και το αυτοσυμπληρούμενο ερωτηματολόγιο ήταν 96% και 82% αντίστοιχα. Βρέθηκε σημαντική συσχέτιση ανάμεσα στον τρόπο συμπλήρωσης και το ποσοστό συμμετοχής (Pearson Chi-Square= 5.005, df=1, p=0.025). Τα ειδικότερα ποσοστά απάντησης για τις συγκεκριμένες ερωτήσεις ήταν 100% για όλες τις ερωτήσεις της προσωπικής συνέντευξης, ενώ για το αυτοσυμπληρούμενο ερωτηματολόγιο ήταν κατά μέσο όρο 91.5% (SD= 0.047).Οσφυαλγία και πόνος στον αυχένα τους τελευταίους 12 μήνες αναφέρθηκε από το 72.9% και 52.4% των συμμετεχόντων αντίστοιχα. Πόνο στον ώμο ανέφερε το 48.9%, το 25.9% ανέφερε πόνο στον αγκώνα και 29.1% πόνο στον καρπό/χέρι. Πόνο στο γόνατο ανέφεραν το 32.1% των συμμετεχόντων. Μυοσκελετικό πόνο τις τελευταίες 4 εβδομάδες ανέφεραν το 37.2% των συμμετεχόντων στην οσφύ, 31.4% στον αυχένα, 31.5% στον ώμο, 16.5% στον αγκώνα, 19% στον καρπό/χέρι και 21.2% στο γόνατο.

Συμπεράσματα: Η προσωπική συνέντευξη αποδίδει υψηλότερα ποσοστά συμμετοχής και παρέχει πληρέστερα δεδομένα, και γι' αυτό θεωρείται η καταλληλότερη μέθοδος συμπλήρωσης του ερωτηματολογίου για τις πολιτισμικές και ψυχοκοινωνικές επιδράσεις στην αναπηρία στον πληθυσμό της Κρήτης.

Λέξεις κλειδιά: ερωτηματολόγιο, επαγγελματικά μυοσκελετικά προβλήματα, ψυχοκοινωνικοί παράγοντες

Abstract

Title:	"Pilot study in Crete for an international survey on musculoskeletal disorders"
by:	Eleni Solidaki, MD, Aristotle University of Thessaloniki
Supervisor:	Manolis Kogevinas, Professor of Epidemiology, Department of Social Medicine, Medical School, University of Crete
Date:	March 2006

Background: After the successful control of well-known and frequently fatal occupational health hazards, interest has now shifted to the control of work related musculoskeletal disorders that are a major cause of disability, lost workdays and increasing demand for health care. The absence of identifiable underlying pathology in many of them, together with the nonspecificity of symptoms favors the hypothesis that psychological factors contribute importantly to such conditions. There is evidence for an effect of psychosocial factors at work on the occurrence of musculoskeletal complaints, but the evidence for the role of specific psychosocial factors has not been established.

Objectives: The main aim of this study was to complete the pilot phase of the international study on musculoskeletal problems and their correlation with cultural and psychosocial factors at work, in Crete. The specific objectives were: 1. To translate the questionnaire of the international study from English in order to apply the instrument to the Greek population, 2. To evaluate two different ways of administering the questionnaire, namely through face-to-face interviews and self administered, and 3. To provide first estimates of prevalence of musculoskeletal disorders in the populations of interest

Methods: The study population consisted of 100 professionals, namely nursing personnel (n=50) and postal clerks (n=50) sorting mail by hand. Half of the subjects from each group completed a self-administered questionnaire, and the other half did a structured personal interview.

Results: The final sample consisted of 89 persons (mean age 40.4 years). The specific response rates for the face-to-face interview and the self-administered questionnaire were 96% and 82% respectively. There was a significant association between the way of administering the questionnaire and the response rate (Pearson Chi-Square= 5.005, df=1, p=0.025).

The item response rate for the face-to-face interview was 100% for all questions. For the self-completed questionnaires the mean item response rate was 91.5% (SD= 0.047).

Lumbago and neck pain during the past 12 months was reported by 72.9% and 52.4% of the respondents respectively. Shoulder pain was reported by 48.9%, 25.9% reported elbow pain and 29.1% wrist and/or hand pain. Knee pain was reported by the 32.1% of the respondents. The distribution of musculoskeletal pain within the past 4 weeks was as follows: 37.2% of respondents reported low back pain, 31.4% neck pain, 31.5% shoulder pain, 16.5% elbow pain, 19% wrist pain and 21.2% knee pain

Conclusions: The face-to-face administration of the questionnaire gives higher response rates and more complete data than the self-administered questionnaire, and is therefore the most appropriate method to administer the questionnaire of the international study on cultural and psychosocial influences on disability to the sample-population of Crete.

Key words: questionnaire, occupational musculoskeletal disorders, psychosocial factors

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Pilot study in Crete of an international survey on musculoskeletal disorders

A. Introduction

A.1. Prevalence of musculoskeletal disorders in Greece and other countries.

Occupational medicine begun to develop as a science, which would assess the correlation between the various noxious agents in the work environment and the risk for disease. It has greatly helped in the elimination of work related diseases such as the bladder cancer in the rubber industry due to exposure to b-naphthylamine (Kogevinas et al., 2003) and the angiosarcoma of the liver due to exposure to vinyl-chloride (WHO, 1999). After the successful control of serious health hazards, interest is now shifted to the control of work related musculoskeletal disorders that are a major cause of disability, lost workdays and increasing demand for health care (Coggon, 2005).

In 1996 a research was conducted with managers and occupational doctors in the United Kingdom and both groups identified musculoskeletal disorders and occupational stress as the two major priorities for research (Harrington and Calvert, 1996, Coggon, 2005). This is true for Greece too given the enormous cost of these situations for the national economy. A research carried out in Greece in 2004, revealed that 31.7% of the general population aged over 15 years old, reports at least one episode of low back pain within the past month, with 46.6% of them reporting also sciatica, 28.1% reporting that they have consulted a physician due to this problem, and 36% reporting that they received medication for it (Stranjalis et al., 2004). Taking into account that the numbers refer to percentages of the general population, the economic implications are obviously large. These include consequences for the employers in terms of sickness absences and for the society as well in terms of welfare benefits and lost productivity (Main and Williams, 2002).

In epidemiologic studies, the lifetime prevalence of low back pain has been estimated for the general population in industrialized countries at 70% (Hofmann, 2002). According to the records of a national insurance company in the USA, workers' back-injury claims account for one third of total compensation claims costs (Snook, 1982) and a big health insurer's records

in Germany indicate that in 1996 approximately 20% of all sick-leave days were due to spine disorders (Hofmann, 2002).

More specifically, musculoskeletal disorders in nursing personnel has been an object of investigation in many studies (Hofmann, 2002, Eriksen, 2004, Maul, 2003, Yip, 2001), which have shown the considerably higher risk of nurses to develop low back pain compared to the general population or to other groups of professionals used as referent e.g. clerks.

It is generally accepted that nursing is among the high risk occupations with respect to musculoskeletal problems, with a point prevalence of low back pain of approximately 17%, an annual prevalence of 40-76% and a lifetime prevalence of 35-80% (Hignett, 1996, Maul, 2003, Hofmann, 2002). Smith et al in 2004, found that the overall prevalence of musculoskeletal disorders in nurses was 70.0 %. In the same study individual categories were reported as follows: lower back 56.7%, neck 42.8%, shoulders 38.9% and upper back pain 38.9%. One year earlier, a study with 269 nurses was completed, in which the participants had provided long-term data for 8 years (1991-1999). The subjects reported an annual prevalence of low back pain between 73-76%, and 38% of them reported the same pain intensity in all follow-ups. Thus, the researchers concluded that low back pain poses a persistent problem among nurses (Maul, 2003).

In Greece musculoskeletal disorders among nurses are also highly prevalent. The prevalence of occupational low-back pain was investigated in 1995 in 407 female nurses in a large tertiary health care unit in Athens, Greece. Work-related back pain within the previous 2 weeks was reported by 63% of respondents and within the previous 6 months by 67% (Vasiliadou, 1995). In another study on nurses that was conducted in Athens with 420 nurses from 6 large general hospitals, the prevalence of low back pain was found to be 75%, of neck pain 47% and of shoulder pain 37% (Alexopoulos et al., 2003)

A.2. Psychosocial factors associated with musculoskeletal disorders

In turning to the increasing prevalence of work related musculoskeletal disorders the health practitioners continue to apply the approach to risk management that has worked well with the examples of b-naphthylamine and vinyl-chloride that were mentioned before (Coggon, 2005). It is assumed that if the exposure to heavy physical load, awkward postures or whole body vibrations is eliminated this could also prevent injury and disability. However, it is becoming obvious that for many disorders such as 'mechanical' low back pain, many neck and arm complaints this approach is not effective. The characteristic that many musculoskeletal complaints share is that despite much research, there is scarce evidence of underlying pathology (Coggon, 2005). The absence of identifiable underlying pathology together with the nonspecificity of symptoms is in favor of the hypothesis that psychological factors contribute importantly to the illness (Coggon, 2005).

A summary of the physical and psychosocial factors contributing to the occurrence of various musculoskeletal complaints is presented in the next page:

Low Back Complaints	**Physical work risk factors** • lifting 6-15 kilograms greater than 10 times per hour or lifting greater than 16 kg at all and always/often working with the back in an awkward position • pushing and pulling objects combined with tasks requiring lifting	**Psychosocial work risk factors** • extrinsic effort • intrinsic effort • role conflict • threat of physical harm or injury
Neck complaints	**Physical work risk factors** • lifting 6-15 kilograms greater than 10 times per hour or lifting greater than 16 kg at all and always/often working with the back in an awkward position • working with the head/neck bent or twisted excessively • vibration from a power tool or machine that made the hands vibrate during the past week • sitting and using a computer more than half the time • seated for 30 minutes or more without a break whilst carrying out work	**Psychosocial work risk factors** • intrinsic effort • job future ambiguity • verbal abuse and/or confrontations with clients or the general public
Shoulder complaints	**Physical work risk factors** • working with the head/neck bent or twisted excessively • lifting 6-15 kilograms greater than 10 times per hour or lifting greater than 16 kg at all and always/often working with the back in an awkward position • repetitive wrist movements for much of the normal working day • repetitive arm movements • seated for 30 minutes or more without a break	**Psychosocial work risk factors** • low social support • low reward • job future ambiguity • threat of harm/injury
Elbow/forearm complaints	**Physical work risk factors** • vibration from a power tool or machine that made the hands vibrate during the past week • repetitive arm movements • performing work with a deviated or bent wrist position	**Psychosocial work risk factors** • low decision latitude • social support • reward • role conflict • job future ambiguity • threat of harm/injury
Hand/wrist complaints	**Physical work risk factors** • vibration from a power tool or machine that made the hands vibrate during the past week • repetitive wrist movements for much of the normal working day • repetitive arm movements • using a keyboard more than four hours per day • performing work with a deviated or bent wrist position	**Psychosocial work risk factors** • intrinsic effort • role ambiguity • job future ambiguity

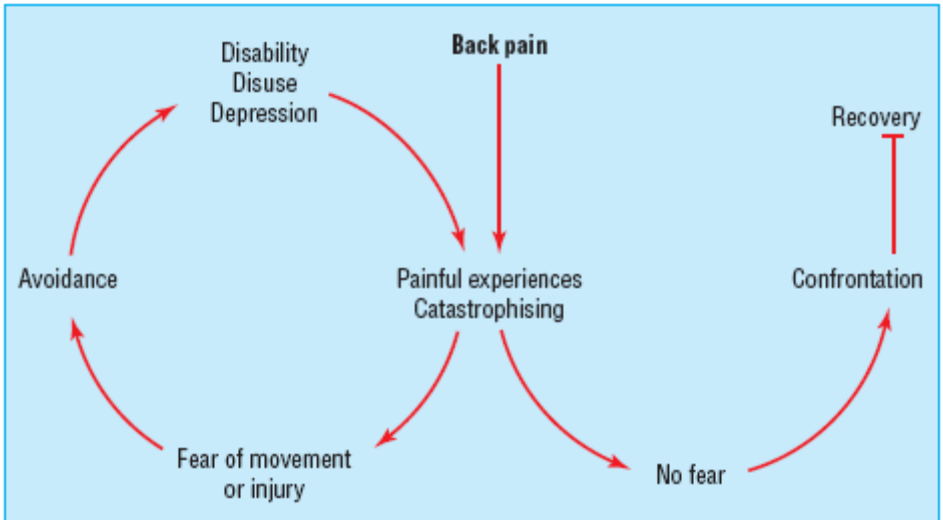
source : (Devereux et al., 2004)

The effects of musculoskeletal disorders on body function or structure are predominantly determined by the severity of the condition itself, influenced by pathogenic and genetic

factors. On the other hand, the effect these conditions have on activities and participation is determined by personal and environmental factors (European Commission, 2003).

Four explanations have been suggested for the association between psychosocial work characteristics and musculoskeletal symptoms:

1. Psychosocial work factors can directly influence the biomechanical load through changes in posture, movement and exerted forces (Bongers et al., 1993, Theorell, 1996, Hoogendoorn, 2000).
2. These factors may trigger physiologic mechanisms, such as increased muscle tension or interfere with hormonal excretion, that may in the long term lead to organic changes and finally the development or intensification of musculoskeletal symptoms or may simply influence pain perception and thus increase symptoms (Bongers et al., 1993, Theorell, 1996, Hoogendoorn, 2000)
3. Psychosocial factors may change the ability of an individual to cope with their illness which, in turn, could influence the recovery from musculoskeletal symptoms (Bongers et al., 1993, Theorell, 1996, Hoogendoorn, 2000). Avoidance of pain, presented as fear of movement or re-injury can lead patients with low back pain to chronicity or disability, when others recover by adopting coping strategies (Main and Williams, 2002).



source: (Main and Williams, 2002)

4. The association may well be confounded by the effect of physical factors at work (Bongers et al., 1993, Theorell, 1996, Hoogendoorn, 2000). It seems plausible that psychosocial factors in private life could also affect musculoskeletal symptoms through the second and third mechanism described above (Hoogendoorn, 2000).

Musculoskeletal disability is frequently associated with physical stress in the workplace, such as heavy lifting, repetitive movements, and work paced by a machine (Mäkelä et al., 1993). The evidence about factors influencing the occurrence and recovery from musculoskeletal disorders is rather heterogeneous. The perceived risk of injury is significantly associated with musculoskeletal symptoms in eight body regions, among

manual handling workers (Yeung, 2002). Depression may also influence musculoskeletal disability. Additionally, there are studies that do not support the hypothesis that computer work activity or ergonomic conditions influence the prognosis of severe arm pain in computer workers (Lassen, 2005). Psychosocial work stress, e.g. work monotony tight time schedules, and lack of self regulation of working pace is also significantly associated with disabling musculoskeletal conditions (European Commission, 2003).

Bongers et al in 1993 concluded that there is strong evidence for monotonous work or poor work content and poor support by colleagues as risk factors for back pain (Bongers et al., 1993). In a study of 1995 by Ahlberg-Hulten, symptoms from the back were significantly related to job strain-the higher the strain, the more symptoms in the low back. Symptoms from the neck and shoulders on the other hand were more associated with social support at work-the lower the support score the more severe the symptoms (Ahlberg-Hulten, 1995). Other researchers concluded that job dissatisfaction and monotonous work were important factors for the occurrence of back pain (Burdorf and Sorock, 1997). The NIOSH study (Bernard, 1997) showed that there was evidence for intensified workload as a risk factor, and limited evidence for low job control and job dissatisfaction, whereas Hoogendoorn found strong evidence for a positive effect of low social support in the workplace and low job satisfaction. She also found evidence in all the studies she reviewed, for the effect of some of the psychosocial work characteristics, but no psychosocial work characteristic for which evidence was found in all studies (Hoogendoorn, 2000). There is evidence for an effect of psychosocial factors at work on the occurrence of back pain, but the evidence for the role of specific psychosocial factors has not been established yet (Hoogendoorn, 2000).

Psychosocial factors in the nursing profession

A considerable number of studies indicate the strong correlation between patient lifting and transferring on one hand and musculoskeletal disorders of the nursing personnel on the other (Hignett, 1996, Lagerstrom et al., 1998). However, staff density and work dissatisfaction have been found to play an important role in this correlation (Lagerstrom et al., 1998). Additionally, the traditional preventive approach of training in lifting and handling techniques alone has been shown to be of little, or no long-term benefit (Hignett, 1996).

A significant association was found between the occurrence of musculoskeletal complaints in nurses and variables such as working under time pressure, increased work pressure, and having no opportunity to take a break from the work (Engels, 1996). A prospective cohort study in nurses, showed that frequent low mood at baseline was strongly associated with subsequent absence from work for back pain (Smedley, 1997). There is also evidence that not only frequent or intense mechanical exposures, but also organizational, psychological, and social work factors, such as "night shift work, perceived lack of support from superior, and perceived lack of a pleasant and relaxing or supporting and encouraging culture in the work unit", are associated with an increased risk of severe low back symptoms and low back pain related sick leaves in nurses' aides (Eriksen, 2004). It has also been reported that excessive mental pressure in nurses incurred a 10.5-fold risk increase for musculoskeletal disorder (Smith, 2004)

There is strong evidence to support the role of psychological distress/depressive mood in the transition from acute to chronic LBP (Pincus, 2002), together with the earlier history of musculoskeletal complaint. Smedley found the earlier history of back trouble to be the strongest predictor of new symptoms, and risk increased with both the duration and recency of previous symptoms (Smedley et al., 1998). There is also evidence for the role of somatization, and the role of cognitive factors i.e mechanisms such as coping strategies, with special emphasis on catastrophizing (Pincus, 2002). Certain researchers suggest that psychological factors play an important role in the transition to chronicity in LBP, and that they may contribute at least as much as clinical factors (Pincus, 2002).

Several studies have associated musculoskeletal complaints with low mood, stress, and job dissatisfaction. Most of them, however, have been cross sectional, and it was unclear to what extent the psychological complaints were secondary to the back problem rather than antecedent. A study, which was restricted to women who were free from pain at baseline and which adjusted for earlier history of back complaints, indicates that low mood does predict future back problems leading to loss of time from work (Smedley, 1997).

A.3. The International study

In view of the above implications, an international study is being designed, which will be conducted in 26 countries, including Greece. The aim of this study is to compare the prevalence of musculo-skeletal symptoms and associated disability in workers who are carrying out jobs with similar physical demands, but in a range of cultural environments, and to explore risk factors for the incidence and persistence of symptoms and disability in these varying cultural environments. The information needed will be collected through the administration of questionnaires to the population of interest.

A.4. Translation of Questionnaires

Collecting accurate health data from different populations is based upon the use of translated instruments that assess the concepts of interest. Working with an inadequately translated instrument may lead the researchers to attribute any differences occurring between the ethnic groups to the different distribution of the variables of interest, when these only result from the use of non equivalent versions of a questionnaire. Such errors are difficult to detect at the stage of the analysis and should be controlled while designing the study. According to the Medical Outcomes Trust and their Scientific Associates, the general process of translating an instrument consists of the following stages (Medical Outcomes Trust, 1997):

Step I: Forward Translation:

The first stage in translating an instrument is the forward translation. The procedures should be initiated by contacting the constructor of the original version of the questionnaire to secure authorization (Λιονής, 2005, Medical Outcomes Trust, 1997). At least two forward translations of the questionnaire should be made from the original language (source language) to the target language. In this way, the translations can be compared, and discrepancies, which may reflect ambiguous wording in the original language, or discrepancies in how a word is translated can be identified, discussed and resolved as the best translation between the translators.

Two independent bilingual translators who have the target language as their mother tongue produce the two forward translations. The translators each produce a written report of the translation that they did. Comments are included to highlight challenging phrases or uncertainties along with the rationale for their final choices. Item content, response options and instructions are all translated using the same process.

The two translators should have different profiles or backgrounds to ensure the best possible translation (Lim, 2003). The first translator should be informed about the type of concepts the questionnaire being translated concerns (e.g. functional disability or neck and

shoulder disorders). Their effort will be aimed at a clinical equivalency, and may produce a translation that is a more reliable equivalence to the original from a measurement perspective.

The other translator should neither be aware nor be informed of the concepts being tested and preferably have no medical background. He or she is more likely to detect the more subtle differences in meaning of the original than the first translator. The second translator should not be influenced by any academic goal, and offer a translation that reflects the language used by the public (Lim, 2003, Guillemin, 1993, Beaton et al., 2002).

To produce a synthesis of the two translations, a third, unbiased person should be added to the team. The role of this person is to serve as a mediator in discussions of translation differences. Working with the original questionnaire as well as the versions from the first and the second translator, a synthesis of these translations is produced, resulting in one common translation. A written report carefully documenting the synthesis process, each issue addressed, and how it was resolved is completed. It is important that all discrepancies should be resolved by consensus, rather than compromise (Beaton et al., 2002).

Step II: Quality Control

Quality control is performed either by quality ratings or by back translation. Quality ratings are based upon conceptual equivalence, clarity and use of familiar vocabulary. Each of these variables is rated on a three-point scale by at least two reviewers, and the variables receiving low scores should be re-evaluated (Medical Outcomes Trust, 1997).

The back translation is formed from the final form of the questionnaire's forward translation, and without access to the original version. This is a process aiming at ensuring that the translated version accurately reflects the content of the original version. The back translation process often magnifies poor wording in the translations (Beaton et al., 2002). However, even if the back translation and the original source version are identical, this does not guarantee a satisfactory forward translation version, as an incorrect, but consistent translation could occur (Leplege and Verdier, 1994). Back translation is only one type of validity check, and is best at highlighting large inconsistencies or conceptual errors in the translation.

As with forward translations, two back-translations are considered a minimum. At least one back-translation should be produced. The back-translator is a bilingual independent person with the original language as their mother tongue. He/she should neither be aware nor informed of the concepts explored, and preferably without any medical background. The main reasons for this are to avoid information bias and to avoid the occurrence of unexpected meanings of the items in the translated questionnaire (Guillemin, 1993, Leplege and Verdier, 1994) thus increasing the likelihood of "highlighting the imperfections"(Leplege and Verdier, 1994, Beaton et al., 2002, Medical Outcomes Trust, 1997).

Step III: Stage of the pre-testing:

The final stage of the adaptation process is the pre-test. The field-testing of the translated instrument can occur with either a monolingual or a bilingual lay panel. The aim in both cases is to highlight any unexpected errors, to measure comprehensibility, test translation alternatives and reveal inappropriate items (Medical Outcomes Trust, 1997). In the monolingual group the instrument is tested through face-to-face interviews or focus groups. In the bilingual panes, the subjects actually complete both versions of the instrument, and items receiving discrepant answers are investigated (Medical Outcomes Trust, 1997).

It should be noted, that while this procedure does provide some useful insight into how an individual person interprets the items on the questionnaire, it does not address the construct validity, reliability or item response patterns which are also critical to describing a successful cross-cultural adaptation (Beaton et al., 2002). The described process ensures for some measure of quality in the content validity. Additional testing for the retention of the psychometric properties of the questionnaire is highly recommended, however not required for a translated version to be approved (Beaton et al., 2002, Atroshi, 2000).

Step IV: International Harmonization:

The pre-testing of the instrument typically marks the end of the translation process. However, when a questionnaire is translated into many languages at once, an international harmonization meeting is necessary. The meeting comprises of as many bilingual professional translators as possible, which are going to ensure that the different versions of the questionnaire are conceptually equivalent (Medical Outcomes Trust, 1997). Decisions made by this committee will aim at achieving equivalence between the source and target versions in four areas:

Semantic equivalence: Do the words have the same meaning? Are there multiple meanings to one single item? Is the translation comprehensible?(Beaton et al., 2002)

Idiomatic equivalence: Colloquialisms, or idioms, are sometimes difficult to translate. The committee may have to formulate an equivalent expression in the target version. For example the term "feeling downhearted and blue" from the SF-36 has often been a problem for translators, and an item with similar meaning would have to replace it (Beaton et al., 2002).

Experiential equivalence: Items seeking to describe an experience of daily life often vary in different countries and cultures. In some instances, a given situation may simply not be experienced in the target culture, even if it is easy to translate. To address this situation, a questionnaire item concerning a similar action or intent in the target culture should replace the original item (Beaton et al., 2002).

Conceptual equivalence: Often words hold different conceptual meaning between cultures. For instance, the meaning of "seeing your family as much as you would like" would differ based on the concept of the term "family" (i.e., nuclear versus extended family)(Beaton et al., 2002).

A.5. Methods of administering questionnaires

Questionnaires can be administered in the following ways:

- **Self-administered questionnaire**. These consist of questions that an individual can complete by oneself. These could range from mail questionnaires, e-mail questionnaires, surveys by hand etc.
- **Interviews**. An interview is made up of the interviewer and the interviewee. These can take place on the telephone, face-to-face, using web-cam, video conferencing, etc.

A.5.1. The self-administered questionnaire

A.5.1.1. Methods for completing the self-administered questionnaire

They are one of the most popular methods for collecting data. The participants complete the questionnaires on their own, and there is no interaction between the researcher and the respondent. There are two ways of completing a self-administered questionnaire:

a. Supervised administration (surveyor is present)
b. Unsupervised administration (surveyor is not present)

(Bezzina, 2002)

There are three types of supervised administration:

One-to-One Supervision

This refers to a situation where the respondent is in a face-to-face meeting with the surveyor and the surveyor is available to answer any questions that the respondent might have about the questionnaire or to clarify concepts if necessary. However, this means that there is no cost benefit over normal interviewing surveys (Bezzina, 2002).

Group Administration

This is applied by passing the questionnaire out to a group of people, with only one surveyor present to provide introductory instructions, to answer questions and monitor the extent to which the questionnaires are completed. Sometimes this method is used to validate a questionnaire to be sent by post later on. The group is used as a pilot test, to raise questions and to see that the response choices are exhaustive (Bezzina, 2002).

Semi supervised Administration

This is when the questionnaire is passed out to a group of people, in most cases not simultaneously. The persons handing out the questionnaires may differ and provide different

help. This could result in inconsistent instructions. Samples taken in this way are usually unrepresentative (Bezzina, 2002).

A.5.1.2. Advantages of Self-Administered Questionnaires

Cost

The fact that self-administered questionnaire data are not collected by interviewers makes it a relatively cheaper way of collecting large amounts of data when compared to the cost of hiring interviewers, plus the cost of training them to conduct the interviews. Although information on costs of administration of different types of questionnaires are only available for some countries, there is evidence that the use of self-administered questionnaires reduces the cost by 50% on telephone questionnaires, and about 75% on personal interviews questionnaires (Bezzina, 2002, Cano, 2005).

Geographic Coverage

A questionnaire can be mailed everywhere in the world, whereas face-to-face interviews are usually restricted to a defined geographic area.

Larger Samples

Because the unit cost is lost, then the surveyor can study a larger sample of persons.

Wider Coverage within a sample population

It is sometimes impossible to get hold of people living in areas of limited access to do a face-to-face interview. However, these people can respond to a mail questionnaire.

Implementation

Easier to implement than other type of surveys.

Timing

It can be assumed that the entire sample receives the questionnaire at the same time, and therefore events that influence the opinion of respondents are reduced.

Sensitive Topics

Self-administered questionnaires are also effective at eliciting responses on topics that are sensitive. Respondents feel less intimidated to answer a questionnaire on their own when compared to being confronted by a stranger asking potentially sensitive questions (Cano, 2005).

A.5.1.3. Disadvantages of Self-Administered Questionnaires

Preplanning

The main disadvantage of self-administered questionnaires lies in the amount of preplanning that has to take place in advance in order to make the questions non-ambiguous and the instructions and guidance self-explanatory (Cano, 2005).

Availability of Lists

To do a suitable mail questionnaire, the surveyor must have a complete and accurate list of the population. These lists are often incomplete or inaccurate.

Response Rates

It is typical that not many people respond to self-administered questionnaires. In Greece the reported response rates for self-completed questionnaires vary greatly between 18.2% and 90.9% depending on the population and the geographical area of interest (Daniilidou et al., 2001)

Literacy and Language

If the questionnaire is sent to illiterate or people who have difficulty reading, then these will not answer the questionnaire, and a selection bias might occur.

Objective

Self-administered questionnaires can only be used when the objective of the study is clear and not complex.

Format

In self-administered questionnaires, the questions need to be short and closed. The method is only suitable when the issues and questions are straightforward and simple and when the population is 100% literate and speaks a common language. It is less suitable for complex issues requiring complex questions or screening questions. Generally, self-administered questionnaires should be shorter than questionnaires used for face-to-face interviews.

No control on who responds

For unsupervised administration, the surveyor has no way of knowing whether the person of interest truly responded or whether someone else filled the questionnaire for him/her.

Time

For mailed questionnaires it takes time for answers to get back to the surveyor. If follow-up is needed, it could take months to collect sample.

A.5.2 Interviews

A survey interview is a purposeful conversation in which one person asks prepared questions (interviewer) and another answers them (respondent/interviewee).

A.5.2.1. Types of interview

There are two types of interviews:

Face-to-face interviews have the biggest response rate among all methods (Bezzina, 2002). They enable longer and more complex interviewing and the use of accessories (brochures,

pictures, samples, etc.) and there is the possibility to use computer aided personal interviewing (CAPI). By using this method, the rate of missing or incomplete answers and the possibilities for misunderstanding questions and answers is the lowest. The supervision of interviewing is the best with this method, but is rather expensive.

Telephone interviews are intermediate cost wise between mailed and face-to face surveys. The interviewers are trained to ask the same questions and in the same order to the respondents of the pre-selected telephone numbers. It requires a similar layout of personnel to edit, code and analyze the data as for the self-completed questionnaires but it provides the opportunity of answering questions if the respondent feels there is ambiguity. However, a telephone interview is not appropriate if it is too long (more than 45 minutes). It is also a very obtrusive way of obtaining data, as people might feel disturbed by an unwelcome intrusion (Cano, 2005).

A.5.2.2. Advantages/Disadvantages of Interviews

Response Rate

It has been shown that this method of surveys increases the response rate (Bezzina, 2002, Bowling, 2003, Cano, 2005).

Quality of data

If the interviewers are properly trained, the quality of the data exceeds that of mailed questionnaires. The interviewer can also enhance respondent participation. However, this cannot be achieved if the interviewing staff is untrained. Moreover, as face-to-face interviews and telephone interviews require more than 1 interviewer, the control of the activities of the group of interviewers is important. The training should include descriptions of what the study is about. It is important that the researchers who design the questions prepare specifications that clarify the handling of difficult or confusing situations that may occur with regard to specific questions in the questionnaire (Cano, 2005, Bowling, 2003).

Samples

Persons selected in the sample are not in a position to throw away the questionnaire.

Time

It is slow compared to self-administered questionnaires, as the interviewer can only question one person at a time (Bowling, 2003).

Cost

It is proven to be more expensive than other methods of surveys (Bowling, 2003).

B. Part Two

B.1. Introduction

The European Foundation for the Improvement of Living and Working Conditions in the "Second European Survey on Working Conditions" suggested that 44% of a sample of Greek workers reported that work had affected their health resulting in backache, the highest percentage in the European Union. This compares with a figure of 23 % in the United Kingdom, 17% in the Netherlands and an overall European Union average of 30% (Paoli, 1997). Additionally, the "Third European Survey on Working Conditions" provides evidence that 80% of workers in Greece agree that their work affects their health in a negative way, 50% of them believe that their health is at risk because of their work, and represent one of the most dissatisfied population of workers in Europe, with 38% reporting that they are moderately to totally dissatisfied from their job (Paoli and Merllie, 2000).

In view of this information, there is an emerging need for a study, which will investigate the association of musculoskeletal symptoms and the resulting disability with cultural and psychosocial factors at work.

B.2. Scope

The main aim of this study was to complete the pilot phase of the international study on musculoskeletal problems and their correlation with cultural and psychosocial factors at work, in Crete.

The specific objectives were:

1. To translate the questionnaire of the international study from English in order to apply the instrument to the Greek population
2. To evaluate two different ways of administering the questionnaire, namely through face-to-face interviews and through self administration
3. To provide first estimates of prevalence of musculoskeletal disorders in the populations of interest

B.3. Study Design

B.3.a. Population of the study

The study population consisted of professionals, namely nursing personnel and postal clerks sorting mail by hand. Nurses and postal clerks are an appropriate study population for the international study as similar physical demands and different cultural environments characterize the corresponding professions. They also constituted the population for the field-testing of the questionnaire.

An appropriate sampling frame was then established, and eligible subjects were invited to take part.

B.3.b. Sampling Frame

The sample for the field-testing of the questionnaire consisted of postal clerks and nurses working in the urban area of Heraklion.

- Postal Clerks

Postal clerks sorting mail by hand are occupied in the central mail-sorting office of Heraklion. The study team contacted the supervisor and obtained written permission to conduct the pilot study on the population of postal clerks of Heraklion. A random sample of 50 workers was selected from a total of 73 workers. An online random number generator assisted the formation of the random sample. From the group of 50 subjects, 25 postal clerks were randomly selected to fill in a self-administered questionnaire, and the rest were asked to participate in face-to-face structured interviews.

- Nurses

The sample of the nursing personnel was recruited from nurses occupied in the University Hospital of Heraklion. After contacting the administrator of the hospital, the study team obtained a written permission to conduct the pilot study on the hospital's nursing personnel. A non-random sample of 4 departments was initially selected. The selection of departments was made on the basis of the study team's members' perception of the physical demands in each one of them (judgement sampling). The departments that were chosen were two of low physical demands (psychiatrics and pneumology department) and two of increased physical demands for the nursing personnel occupied there (intensive care unit and paediatrics department).

B.3.c. Inclusion-Exclusion Criteria

The inclusion criteria were that the subjects should be aged between 20 and 59 years old, and have worked in their current job for at least 12 months in order to exclude any confounding effect from former occupation. All participants were informed about the scope of the study and the potential benefit from it, any questions were answered and only the ones who agreed to sign the consent form would be recruited in the study. Finally, none of the respondents refused to sign the consent form.

B.4. Data Collection

B.4.1. The Questionnaire

The questionnaire of the international survey CUPID (Cultural and Psychosocial Influences on Disability) was translated (see Appendix). It is a questionnaire based on others that have been used successfully in earlier studies, and incorporates elements from validated instruments such as the Short Form-36 (SF-36) and the Brief Symptom Inventory (BSI). The original language was English and the target language was Greek. It consisted of a total of six units, concerning:

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I. Baseline information such as date of birth, gender, height, weight, education, profession and smoking status.

II. Information about the occupational activities and the psychosocial aspects of the participants' work. This unit includes items about the physical load at work, working under pressure; one's potential to take initiative, support from colleagues, job security and job satisfaction

III. Questions about the occurrence and severity of back, neck, shoulder, elbow, wrist, hand, and knee pain, during the past 12 months and the past 4 weeks, as well as information about the specific characteristics of each musculoskeletal disorder, and the resultant disability. This set of questions includes items about the duration of pain, any job absenteeism, medical person's consultation, functionality during the disorder, and the respondents' perceptions about the course of pain.

Musculoskeletal problems were defined as any pain in the area of the neck, low back, shoulder, elbow, wrist/hand and knee which lasted for more than one day during the past 12 months and the past 4 weeks. The above parts of the body were shaded on pictures that were printed on the questionnaire, and were also presented to the subjects going through a personal interview. Especially for low back pain, it was emphasized that any menstrual pain or pain which occurred during the course of a feverish illness should not be reported as low back pain.

IV. Knowledge of the presence or absence of other people suffering from similar problems inside and outside the work-environment.

V. Questions about the views of the participant on the causes and prevention of pain.

VI. Items concerning the participants' general health status and their "somatizing" tendency. This tendency is assessed using selected questions from the Brief Symptom Inventory relating to complaints such as faintness or dizziness, nausea or upset stomach, and difficulty breathing.

B.4.2. Translation of the questionnaire

The standard procedure was applied to translate the English version of the questionnaire into Greek (Medical Outcomes Trust, 1997, Bowling, 2003). The forward translation was performed by one bilingual health professional whose mother language was Greek. The study team then revised the provisional text and many changes were made. Subsequently a professional translator whose mother language was English made the retranslation of the target language version into the source language version. This translator did not have access to the original English language version of the instrument nor did she consult with the first translators. The forward translator revised the original English version together with the back-translated instrument in order to detect errors of meaning and concept nonequivalence. Once the review process was completed, the forward-translator, the back-translator and two more reviewers-members of the study team held a series of meetings to discuss problems found during the review process, to correct errors in grammar and syntax and to resolve problems of equivalence found among the versions. Decisions on wording and corrections were made by consensus and through consultation with the principal investigator of the international study.

Some of the items, in the original questionnaire, that were difficult to translate were the ones including phrases such as "downhearted and low" and "hot or cold spells" for which the exact translation would be meaningless in Greek. Those items had to be replaced with another expression with a similar meaning. Also, the term "squatting" had to be replaced with an appropriate expression, as there is no single corresponding Greek word for it. Similarly, appropriate alternatives had to be found for the words "possibly" and "probably", because their direct translation was problematic, as the translated terms are both used in spoken Greek to express the same likelihood.

A bilingual lay panel of 5 persons assisted the pretest of the translated instrument. The aim of the pretest was to measure comprehensibility, to test translation alternatives, to highlight unexpected or undetected errors, and to reveal inappropriate items. The bilingual panel actually completed both the source and the target versions and items that received discrepant responses were investigated. In addition, the interviewer provided general feedback on how well the instruments were working and to discuss content areas or issues that were problematic.

B.4.3. Methods of completion

B.4.3.a The self-administered questionnaire

The self-administered questionnaire together with an information letter and consent form was handed to the sample units during a personal meeting in their workplace. They were informed about the study and its scope and they were asked to complete the questionnaire before the end of the workday. For those who needed more time a new deadline was given. After failure to complete the questionnaire within this time frame, a final arrangement was made for a meeting that would not be more than 15 days later than the initial contact. The ones who failed to return the questionnaire after the third contact were listed among non-participants.

The ones who declared unwillingness to participate were asked to give information about their gender, age and the reason for not participating.

B.4.3.b. The face-to-face interview

The members of the sample that were chosen to participate in a personal interview were contacted in their workplace, during working hours. They read the information letter and signed the consent form before the interview took place. For those at time pressure, a second meeting was arranged. The duration of the interview was approximately 20-25 minutes. Larger pictures, similar to those in the questionnaire illustrating the body areas that were studied, were presented at the appropriate moment of the interview to facilitate the description of the musculoskeletal problem.

Again, the ones who declared unwillingness to participate were asked to give information about their gender, age and the reason for not participating.

B.4.3.c. Feasibility

In contrast to what was expected, due to the need for repeated contacts to recover self-administered questionnaires, interviewer time for data collection was longer for self-administered questionnaires than for face-to-face interviews.

B.4 Statistical Analysis

The statistical analysis was assisted by the statistical package for the social sciences (SPSS) version 12.0. Descriptive statistics was used in order to describe the personal characteristics of the sample (frequencies for categorical variables, means and standard deviations for scale variables)(Pagano and Gauvreau, 2002).

Associations between variables were investigated using the Chi-Square Test, and the Pearson Chi-Square was calculated. Total non-response and item non-response percentages for self-administered questionnaires and face-to-face interview were also calculated.

In order to determine personal characteristics (explanatory variables), which tend to present more often among participants than non-participants, we performed t-test for equality of means for scale variables, and Crosstabulation (Pearson Chi-Square) for categorical variables.

Kappa statistics was also applied in order to check the translated questionnaire's repeatability.

C. Results

C.1. Baseline Characteristics

The questionnaires were administered and collected between October the 7th, 2005 and November the 4th, 2005. The subjects who finally completed some form of the questionnaire (N=89) (hereafter referred to as respondents) were 45 nurses and 44 postal clerks. The nursing population consisted of 27 nurses (31%), 12 nurses' aides (13.8%) and 4 head nurses (4.6%), whereas the postal clerks were mainly postmen, sorting mail by hand, during half of their working hours, (n=35, 40.2%) and 9 clerks (10.3%) dealing strictly with mail sorting.

The respondents were 50 women (56.2%) and 39 men (43.8%). The percentage of females was larger in the population of nurses where women represented 91.1% of total. This finding is concordant with the fact that in Greece, as well as other countries, women are traditionally practicing the nursing profession. Among postal clerks, the percentage of females was 20.5%, and of males 79.5%. Most of the participants were working in their current position for more than 5 years (n=73, 82%) and only 15 persons for 1-5 years (16.9%).

The age of the respondents ranged between 23 and 56 years, (Mean=40.35, SD=±7.192), and their body mass index between 16.649 and 46.981 (Mean=27.092, SD=±5.504). They reported to have been working for approximately 40 hours per week (Mean=39.854, min=34, max=50, SD=±2.04).

All of the respondents had a Greek nationality. The majority of them were right-handed (n=82, 92.1%), 3.4% were left-handed (n=3) and 4.5% were ambidextrous (n=4). 53.3% of nurses (n=24) and 43.2% of postal clerks (n=19) were smokers. Also, 54% of females (n=27) and 41% of males (n=16) were smokers. When a Chi-Square test was applied, no significant association was found between gender and smoking habit among the respondents (Pearson Chi Square=1.477, df=1, p= 0.224). Table 1 shows baseline characteristics of the 89 respondents.

Characteristics	n	%
Age		
20-29	5	5.6
30-39	44	49.4
40-49	28	31.5
50-59	12	13.5
Gender		
Female	50	56.2
Male	39	43.8
Hand		
Right	82	92.1
Left	3	3.4
Both	4	4.5
Smoking status		
Smokers	43	48.3
Non-smokers	46	51.7
Profession		
Nurses	27	30.3
Nurses' aides	12	13.5
Head nurses	4	4.5
Postmen-postal clerks	9	10.1
Postal clerks	35	39.3
Years in this profession		
1-5	15	16.9
>5	73	82
Age finished full time education		
<14 years	1	1.1
17-19 years	35	39.3
>20 years	53	59.6
Educational Institution they graduated from		
None	2	2.2
High school	47	52.8
Technological	36	40.4
University	4	4.5

Table 1

C.2. Response Rates

The specific response rates for the face-to-face interview and the self-administered questionnaire were 96% and 82% respectively. The chi-square test revealed a significant association between the way of administering the questionnaire and the response rate (Pearson Chi-Square= 5.005, df=1, p=0.025).

The main reasons for not participating was time pressure for the self administered and time pressure or lack of interest on the subject of the survey for the personal interview.

We then performed statistical tests, in order to determine personal characteristics (explanatory variables), which tend to present more often among participants than non-participants. The specification of such characteristics plays an important role in understanding the variation of the response rates among specific subgroups in the general sample.

C.2.1. Professional groups

More specifically, the response rate among nurses was 100% and 80% for the face-to-face interview and the self-administered questionnaire respectively, whereas among postal clerks it was 92% and 84% respectively. The difference in response rates by occupation was not statistically significant for the face-to-face interview (Pearson Chi-Square=2.083, df=1 and p=0.149) nor for the self-administered questionnaire (Pearson Chi-Square=0.136, df=1 and p=0.713).

C.2.2. Age

The respondents' (n=89) mean age was 40.35 years (SD= 7.192) whereas for the non-responders (n=10) it was 39.50 years of age (SD= 8.357). This difference was not statistically significant (independent samples t-test for equality of means, t=0.348, df=97 and p=0.729).

C.2.3. Gender

Of the subjects who responded to any form of the questionnaire, 43.8% were male (n=39) and 56.2% were female (n=50). The distribution of genders in non-respondents was 45.5% male (n=5) and 54.5% female (n=6). No association was found between gender and the overall response rate. (Pearson Chi-Square=0.11, df=1, p=0.918)

C.3. Item Response rate

In the questionnaires completed during a face-to-face interview, where the interviewer asked questions and recorded the answers, there were no missing values, as there was no refusal to answer any question and no items were omitted. As a result, the item response rate for the face-to-face interview was 100% for all items.

For the self-completed questionnaires, the item response rate, varied throughout the questionnaire from 72.3% to 100%. The mean item response rate for the questionnaire as a total was 91.5% with a Standard Deviation equal to 0.047. Most of the questions about baseline characteristics (n=12) had a response rate of 100% (items about date of birth, gender, right or left handed, nationality, weight, smoking status, age at which they finished full time education and the highest educational title obtained). Missing answers were found in items about height (n=1, 2.4%), profession (n=2, 4.8%), years at their current position at work (n=1, 2.4%) and the hours they work per week (n=2, 4.8%). However, the item response rate, for the baseline characteristics items, was satisfactory, ranging from 95.1% to 100% as mentioned before (mean=98.8%, SD=0.019).

The items (n=20) about self reported risk factors at work were also satisfactorily answered, and the corresponding item response rates varied from 78% (1 item) to 100% (7 items). The mean response rate was 94% and the SD=0.062. The item with the lowest response rate was the question about whether one has a choice in deciding what one does at work. The questions providing response rates equal to 100% were the ones related to support from colleagues, working under pressure, deciding how one does their work, job satisfaction, job security and the existence of another job.

The items about the occurrence and the characteristics of any musculoskeletal pain during the past 12 months and the past 4 weeks (n=91) were adequately answered, and the item response rates ranged from 82.9% to 100% (mean=90.7%, SD=0.033). The sets of questions referring to musculoskeletal pain that occurred during the past 12 months had in general higher response rates (mean=92%, SD=0.033), when compared to those referring to musculoskeletal pain that occurred during the past 4 weeks (mean=88.7%, SD=0.019). This is probably due to the fact that in each one of the 6 groups of questions about pain in low back, neck, shoulder, elbow, wrist and knee, the set of questions referring to the past 4 weeks followed the ones referring to the past 12 months, thus exhausting the respondent (Edwards, 2005, Bogen, 1997).

The group of questions about the health of others inside and outside the workplace (n=8) had item response rates ranging from 73.2% to 90.2%. The mean response rate for this set of items was 83.8% and its standard deviation SD=0.071.

The set of questions referring to the participants' perceptions and views about the causes and prevention of pain (n=11) produced response rates between 87.8% and 95.1%. The mean value was 90.5% and the Standard Deviation equal to 0.03.

Finally, in the group of questions about the respondents' general health (n=18), the response rates were calculated and found to have a mean value of 92% with a Standard Deviation equal to 0.014. The item response rates in this set of items had a minimum value equal to 90.2% and a maximum value equal to 95.1%.

C.4. Reliability of the translated instrument

The translated instrument's reliability was assessed using the test-retest repeatability, which constitutes one aspect of reliability. This is a test of the stability of the measure over a period of time in which it is not expected to change. We calculated the reproducibility of the responses to the questionnaire in two administrations of the same instrument to twenty subjects from the study population in different times (*test retest reliability).*

Between the two administrations of the instrument there was an interval of 4 weeks. The sample of twenty subjects was randomly selected among the 25 nurses who had completed the questionnaire through a face-to-face interview.

The sets of answers given in both administrations were used to calculate the kappa coefficient of agreement for each item. Kappa statistics was performed for the questions concerning the existence of risk factors at work, general perceptions about the causes and prevention of pain and pain that had occurred during the past 12 months. Questions about any pain that occurred during the past 4 weeks were not used to calculate kappa coefficient of agreement as the interval between the first and second administration of the questionnaire was broader.

Values of kappa greater than 0.75 are considered excellent agreement, values between 0.4 and 0.7 fair to good agreement and values below 0.4 are considered poor (Thompson and Walter, 1988). Most of the items assessed in the present study had kappa coefficients in the fair to good range. The overall kappa coefficient for the questionnaire was 0.505, which is considered satisfactory for epidemiological studies. The item specific coefficients varied between 0.130 and 1.00. Below are a graph and a list of the kappa coefficients for the items assessed in this study. The kappa coefficient that could not be computed is referred to as undefined. This happens in cases that are impossible to provide a symmetric two-way table in which the values of the first administration of the item will match the values of its second administration.

Table 2

item	**k**
risk factors for MSD	
age finished full time education	negative
highest educational title obtained	1
years at this work	1

repetitive movements of the wrist at work	0.596
use of keyboard at work	undefined
repetitive movements of the elbow at work	0.412
working with hands above shoulder height	0.571
lifting 10kgr at work	0.474
lifting 25kgr at work	0.794
climbing 30 stairs at work	negative
kneeling or squatting at work	0.13
doing piecework	undefined
target number of tasks per day	undefined
bonus payment	undefined
working under pressure	0.459
deciding how one works	undefined
deciding what one does at work	0.171
deciding one's timetables and breaks	0.161
support from colleagues	0.539
job satisfaction	undefined
job security	0.373
other job	1
have you had…	
lumbago in the past 12 months	0.794
neck pain in the past 12 months	0.588
shoulder pain in the past 12 months	undefined
elbow pain in the past 12 months	undefined
wrist pain in the past 12 months	undefined
knee pain in the past 12 months	undefined
do you know anyone who had…	
lumbago within the past 12 months inside work	undefined
lumbago within the past 12 months outside work	0.231
neck pain within the past 12 months inside work	0.211
neck pain within the past 12 months outside work	0.205
pain in the arm within the past 12 months inside work	0.571
pain in the arm within the past 12 months outside work	0.524
knee pain within the past 12 months inside work	0.48
knee pain within the past 12 months outside work	0.417

item	k
do you agree that…	
someone with pain in the arm should avoid physical activity	0.295
pain in the arm gets better within 3 months	0.329
someone with pain in the arm needs rest to get better	undefined
neglecting problems of the arm might be hazardous	undefined
problems of the arm are commonly caused from one's work	undefined
someone with low back pain should avoid physical activity	0.713
low back pain usually gets better within 3 months	0.355
someone with lumbago needs rest to get better	undefined
neglecting problems of the low back might be hazardous	undefined
problems of the low back are commonly caused from one's work	Undefined
Have you ever read or heard about repetitive strain injury	undefined
absenteeism due to musculoskeletal problem the past 12 months	0.341
absenteeism due to other illness the past 12 months	0.898

C.5. Estimates of Prevalence

The completed questionnaires provided data for the calculation of some first estimates for the prevalence of the musculoskeletal disorders in the population of interest.

Lumbago and neck pain, which lasted more than one day during the past 12 months, was reported by 72.9% and 52.4% of the respondents, respectively. Shoulder pain was reported by 48.9%, 25.9% reported elbow pain and 29.1% wrist and/or hand pain. Knee pain was reported by the 32.1% of the respondents. Below is a table with the distribution of the musculoskeletal disorders of interest among the members of the sample.

Table 3

Pain in the past	N	valid %	Nurses	Postal Clerks

12 months	(total)	(total)	(N, valid%)	(N, valid%)
Low back pain				
Yes	62	72.9	N=32, 71.1%	N=30, 75%
No	23	27.1	N=13, 28,9%	N=10, 25%
Neck pain				
Yes	45	52.3	N=19, 42.2%	N=26, 63.4%
No	41	47.7	N=26, 57.8%	N=15, 36.5%
Shoulder Pain				
Right Shoulder	19	21.6	N=9, 20%	N=10, 23.3%
Left Shoulder	13	14.8	N=4, 8.9%	N=9, 20.9%
Both Shoulders	11	12.5	N=4, 8.9%	N=7, 16.3%
No	45	51.1	N=28, 62.2%	N=17, 39.5%
Elbow Pain				
Right Elbow	11	12.9	N=3, 6.7%	N=8, 20%
Left Elbow	5	5.9	N=3, 6.7%	N=2, 5%
Both Elbows	6	7.1	N=2, 4.4%	N=4, 10%
No	63	74.1	N=37, 82.2%	N=26, 65%
Hand / Wrist Pain				
Right Hand/Wrist	18	20.7	N=9, 20%	N=9, 21.4%
Left Hand/Wrist	6	6.9	N=4, 8.9%	N=2, 4.8%
Both Hands/Wrists	10	11.5	N=5, 11.1%	N=5, 11.9%
No	53	60.9	N=27, 60%	N=26, 61.9%
Knee Pain				
Right Knee	10	11.9	N=4, 9.3%	N=6, 14.6%
Left Knee	4	4.8	N=2, 4.7%	N=2, 4.9%
Both Knees	13	15.5	N=4, 9.3%	N=9, 22%
No	84	67.9	N=33, 76.7%	N=24, 58.5%

The distribution of musculoskeletal pain within the past 4 weeks is as follows: 37.2% of respondents reported low back pain, 31.4% neck pain, 31.5% shoulder pain, 16.5% elbow pain, 19% wrist pain and 21.2% knee pain. The occurrence of musculoskeletal symptoms to the respondents from the two professional groups is presented in table 4.

Table 4

Pain in the past 4 weeks	N (total)	valid % (total)	Nurses (N, valid%)	Postal Clerks (N, valid%)
Low back pain				
Yes	32	37,2	N=16, 35.6%	N=16, 39%
No	54	62.8	N=29, 64.4%	N=25, 61%
Neck pain				
Yes	27	31.4	N=9, 20%	N=18, 43.9%
No	59	68.6	N=36, 80%	N=23, 56.1%
Shoulder Pain				
Right Shoulder	14	16.3	N=6, 13.6%	N=8, 19%
Left Shoulder	4	4.7	N=0, 0%	N=4, 9.5%
Both Shoulders	9	10.5	N=4, 9.1%	N=5, 11.9%
No	59	68.6	N=34, 77.3%	N=25, 59.5%
Elbow Pain				
Right Elbow	5	5.9	N=2, 4.4%	N=3, 7.5%
Left Elbow	5	5.9	N=3, 6.7%	N=2, 5%
Both Elbows	4	4.7	N=1, 2.2%	N=3, 7.5%
No	71	83.5	N=39, 86.7%	N=32, 80%
Hand / Wrist Pain				
Right Hand/Wrist	9	10.7	N=3, 6.8%	N=6, 15%
Left Hand/Wrist	1	1.2	N=1, 2.3%	N=0, 0%
Both Hands/Wrists	6	7.1	N=3, 6.8%	N=3, 7.5%
No	68	81	N=37, 84.1%	N=31, 77.5%
Knee Pain				
Right Knee	5	5.9	N=3, 6.8%	N=2, 4.9%
Left Knee	3	3.5	N=1, 2.3%	N=2, 4.9%
Both Knees	10	11.8	N=3, 6.8%	N=7, 17.1%
No	67	78.8	N=37, 84.1%	N=30, 73.2%

Crosstabulations were then performed in order to investigate any association between the respondents' profession and the presence of musculoskeletal pain in the past 12 months and the past 4 weeks for at least one day. A significant association was indicated between the postal clerks' profession and the occurrence of neck pain both in the past 12 months and the past 4 weeks. Pearson Chi-Square was 3.862, df=1 and p= 0.049 for pain in the past 12 months, whereas Pearson Chi-Square was 5.691, df=1 and p=0.017 for pain in the past 4 weeks. All other crosstabulations revealed no significant association.

D. Discussion

We examined two different methods of administering a questionnaire in nurses and postal clerks and identified that response rates and completeness of information was higher for personal interviews compared to self-administered questionnaires. We also estimated the prevalence of specific musculoskeletal disorders and found that specifically back and neck pain were very high in both occupational groups.

The calculation of the response rates for the two methods of administering the questionnaire confirms the knowledge that self-administered questionnaires have smaller response rates and less accurate information to offer than questionnaires administrated through a personal interview (Bowling, 2003, Cano, 2005, Bezzina, 2002). It is reported in literature that this difference can be in the range of 20% (Bowling, 2003). In our pilot study it was 16%. The specific response rates for the face-to-face interview and the self-administered questionnaire were 96% and 82% respectively, and the association between administration method and response rate was significant.

Self-administered questionnaires are frequently quoted as cheaper than personal interviews. This may certainly be the case if questionnaires are sent by mail. However in the work places examined this would probably result to very low response rates and we opted to give by hand the questionnaires to the nurses and postal clerks. This almost certainly raised the response rate for the self-administered questionnaires but at the same time increased the administrative burden. I did not keep a detailed record of time needed on average to recover the completed self -administered questionnaires as compared to the time spent for the personal interviews. However, almost certainly the two methods did not result in very different a time for completion and possibly the personal interview was more efficient.

Even a study with high response rates leaves a percentage of the study population for whom no data is available, and this may potentially lead to bias. The direction of the bias is largely unknown, but it is assumed that it would possibly lead to an overestimation of the prevalence of musculoskeletal disorders, because people suffering from a musculoskeletal problem are more likely to participate in a study about this disorder (non-response bias) (Bowling, 2003). However, the response rate of the study is considered to be very satisfactory and the non-response bias is expected to be minimal.

In this study we found high prevalences not only for low back pain, but also for neck, shoulder, elbow, hand and/or wrist and knee pain. The prevalences for various types of musculoskeletal disorders during the past 12 months were 73% for low back pain, 52% for

neck pain, 22%, for shoulder pain, 26%, for elbow pain, 39% for hand and/or wrist pain, and 32% for knee pain.

Prevalence studies for the estimation of musculoskeletal disorders among postal clerks in Greece are scarce, whereas for the population of nurses there are certain comparable studies. In a cross-sectional study among nursing personnel (n=351) in Greece in 2003, the prevalence for low back pain was 75%, for shoulder pain 37% and for neck pain 47% (Alexopoulos et al., 2003). The corresponding prevalences for the population of nurses from our study were: low back pain 71%, neck pain 42%, and shoulder pain 38%. The results indicate a high degree of agreement on the prevalences of musculoskeletal complaints. Both studies agree with most international studies on the high prevalence of musculoskeletal disorders in nursing personnel (Lagerstrom et al., 1998, Snook, 1982, Menzel, 2004, Smith, 2004, Ahlberg-Hulten, 1995, Engels, 1996, Eriksen, 2004, Hignett, 1996, Hofmann, 2002, Maul, 2003, Smedley, 1997, Vasiliadou, 1995, Ando et al., 2005). However, the numbers vary greatly from one study to another. The annual prevalence of low back pain on nurses is estimated in reviews to range between 40-76%, and the lifetime prevalence between 35-80% (Hignett, 1996, Maul, 2003, Hofmann, 2002). In order to be able to generalize results and compare data, it is essential to be precise about the definition used and to use comparable questionnaires (Ozguler et al., 2000). As there is no consensual definition for low back pain, there are large inconsistencies in literature. Prevalences for low back pain vary according to the definition used in the study (Ozguler et al., 2000). For example, certain studies defined the nonsymptomatic subject as the person experiencing pain for less than 8 days within the last 12 months or with an intensity score below 4 within the last 3 months (Lipscomb, 2004, Juul-Kristensen, 2004, Menzel, 2004), whereas in the Greek study of 2004, which was described above, musculoskeletal complaint of back, neck, shoulder or hand/wrist was defined as pain, which had continued for at least a few hours during the past 12 months (Alexopoulos et al., 2004). In our study, musculoskeletal complaint of back, neck, shoulder, hand/wrist of knee was defined as pain which had continued for at least one day during the past 12 months.

Selection bias (internal validity) could be a potential source of error in this study. In occupational health studies, at least two types of selection bias may occur: (a) a selection of "healthy workers" in the work population studied, and (b) an exclusion of symptomatic workers who are on sick leave at the period of data collection. Both of these biases tend to lead to an underestimation of the true prevalence of the observed health effect because the workers who are in better health tend to be those in the workforce and available for study (Bernard, 1997, Bowling, 2003). The pilot study in Crete was cross-sectional and we therefore could not assess the magnitude of this bias. However, this study was conducted among civil servants, which in Greece are permanent employees and do not change jobs often. This indicates that selection bias is not likely to have affected the results of our study.

The retrospective assessment of musculoskeletal pain can also induce a bias in studies of this type. Pain is one of the most common outcome variables in epidemiologic studies of work-

related musculoskeletal disorders. Most of these studies rely on a single retrospective assessment of pain obtained by questionnaire. However, pain may not be recalled accurately (recall bias) (Brauer et al., 2003, Feinea et al., 1998, Linton and Melin, 1981). In a study by Linton and Melin in 1981, patients at follow up remembered having significantly more pain than they actually rated during the baseline period (Linton and Melin, 1981), whereas other investigators support that the accuracy of recall for pain depends on the severity of it before treatment and on the level of pain at the moment of recall (Feinea et al., 1998). However, a study which compared the results of 12 consecutive weekly pain recordings with a final retrospective assessment of pain intensity covering the same 3-month period, suggests that subjects are able to accurately recall and rate the severity of pain or discomfort in short periods, and that retrospective reports on pain intensity are sufficiently reliable (Brauer et al., 2003). It is also supported that there is generally a high level of concordance between medical record data and patients' reports in structured interviews of major conditions and types of treatment (Bowling, 2003). In our study, the respondents were asked to provide information about pain that lasted for at least 24 hours during the past 12 months and the past 4 weeks, and to describe the disability that resulted from it. These are considered to be easy to recall, major conditions. Although this is a retrospective assessment of symptoms, it concerns recent information which should minimize the problem of accurate recall.

The use of a structured questionnaire is an advantage of this study, because structured questionnaires provide the ability to collect unambiguous and easy to count answers, leading to quantitative data for analysis. On the other hand, pre-coded response choices may not be sufficiently comprehensive and not all answers may be easily recorded. Some respondents therefore may be 'forced' to choose inappropriate pre-coded answers that might not fully represent their perceptions (Bowling, 2003). Structured interviews are based on the assumption that all members of the population of interest understand the wording, although this may not be true. Additionally, there is potential for bias such as recall bias, as mentioned before, interviewer induced bias or social desirability bias for example in the section about personal characteristics, in which obese respondents might have understated their body weight. All of the above represent essential weaknesses of the structure and the function of structured questionnaires, and were eliminated through the appropriate translation of the questionnaire and the interviewer training. However, they are aspects of the research methodology that should be taken into account when one attempts to interpret its results.

The reliability of the translated questionnaire was assessed through test-retest repeatability and the overall kappa coefficient was satisfactory. Despite that fact, additional testing for the retention of the original questionnaire's psychometric properties is considered necessary. This methodological issue could have affected the results obtained from this study, and mainly the estimates of prevalence for the musculoskeletal disorders of interest.

E. Conclusions

Two different ways of administering the questionnaire were evaluated. The response rate was higher when a face-to-face interview was conducted, compared to that of the self-administered questionnaire, and this difference was statistically significant. The item response rates were 100% for all items in the face-to-face completed questionnaire, whereas for the self-administered it varied between 72.3% and 100%.

The face-to-face administration of the questionnaire produces higher response rates and more complete data therefore it is considered to be the most appropriate method to administer the questionnaire of the international study on cultural and psychosocial influences on disability to the sample-population of Crete. Finally, although this was not the main aim of the pilot study, the estimates of prevalence of musculoskeletal symptoms was very high and was comparable to that of other studies indicating that in Greece musculoskeletal disorders problems are a very frequent occupational health problem.

Bibliography

AHLBERG-HULTEN GK, SIGALA F (1995) Social support, job strain and musculoskeletal pain among female health care personnel. *Scand J Work Environ Health* 21(6):435-9.

ALEXOPOULOS, E., BURDORF, A. & KALOKERINOU, A. (2003) Risk factors for musculoskeletal disorders among nursing personell in Greek hospitals. *Int Arch Occup Environ Health* (76): 289-294.

ALEXOPOULOS, E., STATHI, I. & CHARIZANI, F. 2004 Prevalence of musculoskeletal disorders in dentists BMC Musculoskeletal Disorders available at: www.biomedcentral.com/1471-2474/5/16 access date: 29/06/2004

ANDO, S., ONO, Y., SHIMAOKA, M., HIRUTA, S., HATTORI, Y., HORI, F. & TAKEUCHI, Y. (2005) Associations of self estimated workloads with musculoskeletal symptoms among hospital nurses. *Occup Environ Med* 57: 211-216.

ATROSHI I, ANDERSSON B, DAHLGREN E, JOHANSSON A. (2000) The disabilities of the arm, shoulder and hand (DASH) outcome questionnaire:
reliability and validity of the Swedish version evaluated in 176 patients. *Acta Orthop Scand* 71(6):613-8.

BEATON, D., BOMBARDIER, C., GUILLEMIN, F. & FERRAS, M. B. (2002) *Recommendations for the cross cultural adaptation of health status measures*, American Academy of Orthopaedic Surgeons Institute for Work and Health.

BERNARD, P. B. (1997) *Musculoskeletal disorders and workplace factors.A critical review of epidemiologic evidence for work related musculoskeletal disorders of the neck, upper extremity and low back*, US Department of Health and Human Sciences.

BEZZINA, A. C. 2002 Lancaster University, Center for Applied Statistics, online short courses, available at: www.cas.lancs.ac.uk/short_courses/countdown.php?url=notes/sampling/session4.pdf, last visited: 08/01/2006

BOGEN, K. 1997 The effect of questionnaire length on response rates - a review of the literature available at: www.census.gov/srd/papers/pdf/kb9601.pdf access date: 06.01.2006

BONGERS, P., DEWINTER, C. & KOMPIER, M. (1993) Psychosocial factors at work and musculoskeletal disease. *Scand J Work Environ health* (19): 297-310.

BOWLING, A. (2003) *Research Methods in Health,* Berkshire, Open University Press.

BRAUER, C., THOMSEN, J. F., LOFT, I. P. & MIKKELSEN, S. (2003) Can we rely on retrospective pain assessments? *Am J Epidemiol* 157:552-557.

BURDORF, A. & SOROCK, G. (1997) Positive and negative evidence for risk factors for back disorders. *Scand J Work Environ Health* 23: 243-56.

CANO, V. 2005 Questionnaire or Interview? available at: http//www.qmuc.ac.uk/psych/RTrek/foundationf10.htm access date: 10/01/2006

COGGON, D. (2005) Occupational medicine at a turning point. *Occup. Environ. Med* (62): 281-283.

DANIILIDOU, N., ECONOMOU, C., ZAVRAS, D., KYRIOPOULOS, J. & GEORGOUSSI, E. 2001 Health and social care in ageing population: the case of an integrated care institution in Greece, available at: http://www.integratedcarenetwork.org/publish/articles/000004/article_print.html, access date: 06/01/2006

DEVEREUX, J., RYDSTEDT, L., KELLY, V., WESTON, P. & BUCKLE, P. (2004) The role of work stress and psychological factors in the development of

musculoskeletal disorders. IN ROBENS CENTER FOR HEALTH ERGONOMICS, UNIVERSITY OF SHEFFIELD, GUILFORD (Ed.)
EDWARDS, I. R., M CLARKE, C DIGUISEPPI, S PRATAP, R WENTZ, I KWAN, R COOPER (2005) Methods to increase response rates to postal questionnaires. *The Cochrane Database of Methodology Reviews 2005 Issue 3*.
ENGELS JA, SENDEN TF, VAN'T HOF B (1996) Work related risk factors for musculoskeletal complaints in the nursing
profession: results of a questionnaire survey. *Occup Environ Med* 53(9):636-41.
ERIKSEN, W., BRUUNSGAARD, D., KNARHDAL, S., (2004) Work factors as predictors of intense of disabling low back pain; a prospective study of nurses' aides. *Occup Environ Med* (61) 5: 398-404.
EUROPEAN COMMISSION (2003) *Musculoskeletal Problems and Functional Limitation,* Oslo, European Commission and University of Oslo.
FEINEA, J. S., LAVIGNED, DAOF, MORINA, C. & LUNDA, J. P. (1998) Memories of chronic pain and perceptions of relief. *Pain* 77 (2): 137-141.
GUILLEMIN, F., BOMBARDIER, C., BEATON, D. (1993) Cross cultural adaptation of health related quality of life outcomes: Literature review and proposed guidelines. *Journal of Clinical Epidemiology* 46: 1417-1432.
HARRINGTON, J. & CALVERT, I. (1996) Research priorities in occupational medicine: a survey of United Kingdom personnel managers. *Occup Environ Med* (53):642-4.
HIGNETT, S. (1996) Work-related back pain in nurses. *J Adv Nurs* 23(6):1238-46.
HOFMANN F, MICHAELIS M, NUBLING M, SIEGEL A (2002) Low back pain and lumbago-sciatica in nurses and a reference group of clerks: results of a comparative prevalence study in Germany. *Int Arch Occup Environ Health* 75(7):484-90.
HOOGENDOORN, W., MIREILLE N. M.; BONGERS, PAULIEN M.; KOES, BART W.; BOUTER, LEX M. (2000) Systematic review of psychosocial factors at work and private life as. *SPINE* (25)16: 2114-2125.
JUUL-KRISTENSEN, B., SOGAARD, K., STROYER, J., JENSEN, C. (2004) Computer users' risk factors for developing shoulder, elbow and back symptoms. *Scand J Work Environ Health* Vol 30(5), pp:390-8.
KOGEVINAS, M., MANNETJE, A., CORDIER, S., RANFT, U., GONZALEZ, C., VINEIS, P., CHANG-CLAUDE, J., LYNGE, E., WAHRENDORF, W., TZONOU, A., JOKEL, K. H., SERRA, C., PORROU, S., HOURS, M., GREISER, E. & BOFFETTA, P. (2003) Occupation and bladder cancer among men in western Europe. *Cancer Causes and Control* 14:907-914.
LAGERSTROM, M., HANSSON, T. & HAGBERG, M. (1998) Work related low-back problems in nursing. *Scand J Work Environ Health* 24 (6):449-64.
LASSEN, C. F., MIKKELSEN, S., KRYGER, AI., ANDERSEN, JH. (2005) Risk factors for persistent elbow, forearm and hand pain among computer workers. *Scand J Work Environ Health* 31(2):122-31.
LEPLEGE, A. & VERDIER, A. (1994) The adaptation of health status measures. A discussion of certain methodological aspects of the translation procedures. *In Beaton et al. (2002), Recommendations for the cross cultural adaptation of health status measures, Americaln Academy of Orthopaedic Surfeons Institute for WOrka and Health*.
LIM, T., DAS, A., RAMPAL, S., ZAKI, M., SHAHABUDIN,SM., ROHAN,MJ., ISAACS, S. (2003) Cross-sultural adaptation and validation of the English version of the international index of Erectile function (IIEF) for use in Malaysia. *International Journal if Impotence Research* 15:329-336.
LINTON, S. J. & MELIN, L. (1981) The accuracy of remembering chronic pain. *Pain* (13)3:281-285.
LIPSCOMB, J., TRINKOFF, A., BRADY, B., GEIGER-BROWN, J. (2004) Health care system changes and reported musculoskeletal disorders among registered nurses. *Am J Public Health* 94(8):1431-5.

MAIN, C. & WILLIAMS, A. (2002) ABC of psychological medicine: musculoskeletal pain. *British Medical Journal* (325): 534-537.
MÄKELÄ, M., HELIÖVAARA, M., SIEVERS, K., KNEKT, P., MAATELA, J. & AROMAA, A. (1993) Musculoskeletal disorders as determinants of disability in Finns aged 30 years or more. *J Clin Epidemiol* 46:549-559.
MAUL I, KLIPSTEIN A, KRUEGER H. (2003) Course of low back pain among nurses: a longitudinal study across eight years. *Occup Environ Med* 60(7):497-503.
MEDICAL OUTCOMES TRUST, (1997) MEDICAL OUTCOMES TRUST. Trust introduces new translation criteria. *Medical Outcomes Trust Bulletin* 5:1-4.
MENZEL, N. N., BROOKS, S.M., BERNARD, T.E., NELSON, A. (2004) The physical workload of nursing personnel: association with musculoskeletal discomfort. *Int J Nurs Stud.* 41(8):859-67.
OZGULER, A., LECLERC, A., LANDRE, M. F., PIETRI-TALEB, F. & NIEDHAMMER, I. (2000) Individual and occupational determinants of low back pain according to various definitions of low back pain. *J Epidemiol Community Health* 54:215-220.
PAGANO, M. & GAUVREAU, K. (2002) *Αρχές Βιοστατιστικής,* Αθήνα, Εκδόσεις Έλλην.
PINCUS, T., BURTON, A.K., VOGEL, S., FIELD, A.P. (2002) A systematic review of psychological factors as predictors of chronicity/disability in prospective cohorts of low back pain. *SPINE* 27 (5): E109-E120.
SMEDLEY J, COOPER C, COGGON D (1997) Prospective cohort study of predictors of incident low back pain in nurses. *BMJ* 30;315(7107):550-1.
SMEDLEY, J., INSKIP, H., COOPER, C. & COGGON, D. (1998) Natural History of low back pain: a longitudinal study in nurses. *SPINE* (23)22:2422-2426.
SMITH, D. R., WEI, N., KANG, L., WANG, RS. (2004) Musculoskeletal disorders among professional nurses in mainland China. *J Prof Nurs* 20(6):390-5.
SNOOK, S. H. (1982) Low back pain in industry. In: Hoffman et al (2002), low back pain and lumbago-sciatica in nurses and a reference group of clerks: results of a comparative prevalence study in Germany. *Int Arch Occup Environ Med* (75)7:474-90.
STRANJALIS, G., TSAMANDOURAKI, K., SAKAS, D. & ALAMANOS, Y. (2004) Low Back Pain in a Representative Sample of the Greek Population. *SPINE* (29) 12: 1355-1361.
THEORELL, T. (1996) Possible mechanisms behind the relationship between the demand-control-support model and disorders of the locomotor system. In: Hoogendoorn et al (2000) systematic review of psychosocial factors at work and private life. *SPINE* (25)16:2114-2125.
THOMPSON, W. D. & WALTER, S. D. (1988) A Reappraisal of the Kappa Coefficient. *J Clin Epidimiol* 41:949-948.
VASILIADOU A, SOUMILAS A, ROUMELIOTIS D, THEODOSOPOULOU E. (1995) Occupational low-back pain in nursing staff in a Greek hospital. *J Adv Nurs* 21(1):125-30.
WHO (1999) *Vinyl Chloride,* Geneva.
YEUNG, S. S. G., ASH; DEDDENS, JAMES; ALHEMOOD, ALI; LEUNG, P. C. (2002) Prevalence of Musculoskeletal Symptoms in Single and Multiple Body Regions and Effects of Perceived Risk of Injury Among Manual Handling Workers. Vol 27(19), pp 2166-2172.
YIP, Y. (2001) A study of work stress, patient handling activities and the risk of low back
pain among nurses in Hong Kong. *J Adv Nurs* 36(6):794-804.
ΛΙΟΝΉΣ, Χ. (2005) Χρήση διαγνωστικών κλιμάκων και εργαλείων εκτίμησης της ποιότητας ζωής των ασθενών στην πρωτοβάθμια φροντίδα υγείας. *Διεταιρική συζήτηση, 31ο Πανελλήνιο Ιατρικό Συνέδριο.* Αθήνα.

ΔΙΕΘΝΗΣ ΕΡΕΥΝΑ ΓΙΑ ΤΗΝ ΕΡΓΑΣΙΑ ΚΑΙ ΤΗΝ ΥΓΕΙΑ

Παρακαλώ γράψτε την ημερομηνία που συμπληρώνετε το έντυπο

ημέρα		*μήνας*		*έτος*	

ΕΝΟΤΗΤΑ ΕΝΑ: ΣΧΕΤΙΚΑ ΜΕ ΤΟΝ ΕΑΥΤΟ ΣΑΣ

1. Παρακαλώ συμπληρώστε την ημερομηνία γέννησής σας

ημέρα		*μήνας*		*έτος*			

2. *και* το φύλο σας — άνδρας ☐ γυναίκα ☐

3α) Είστε δεξιόχειρας ή αριστερόχειρας; — δεξιόχειρας ☐ αριστερόχειρας ☐ Και τα δύο εξίσου ☐

β) Παρακαλώ συμπληρώστε το βάρος σας ☐

γ) *και* το ύψος σας ☐

δ) Είστε καπνιστής/καπνίστρια; — Όχι ☐ Ναι ☐

4. Πώς θα περιγράφατε καλύτερα την εθνική σας καταγωγή;

Ελληνική ☐ Βουλγαρική ☐ Ρουμανική ☐

Αλβανική ☐ Γεωργιανή ☐ Η.Π.Α ☐

Άλλο (παρακαλώ εξειδικεύστε) ☐ _____

5α) Πόσων χρονών ήσασταν όταν τελειώσατε όλες τις σπουδές σας (γυμνάσιο, λύκειο ή ΤΕΕ, ανώτερη ή ανώτατη εκπαίδευση) ;

Κάτω από 14 ετών ☐ 14-16 ετών ☐ 17-19 ετών ☐ 20 ετών ή μεγαλύτερος/η ☐

β) Ποιος είναι *ο ανώτερος* τίτλος σπουδών που έχετε ;

Απολυτήριο λυκείου ή ΤΕΕ ☐ Πτυχίο ΤΕΙ ☐ Πτυχίο ΑΕΙ ☐

ΕΝΟΤΗΤΑ ΔΥΟ: Η ΠΑΡΟΥΣΑ ΕΡΓΑΣΙΑ ΣΑΣ

6. Ποια είναι η κύρια επαγγελματική σας απασχόληση; _____

7. Πόσον καιρό κάνετε αυτή τη δουλειά;

Λιγότερο από ένα χρόνο ☐ 1-5 χρόνια ☐ Περισσότερο από 5 χρόνια ☐

8. Πόσες ώρες την εβδομάδα κανονικά εργάζεστε σε αυτή τη δουλειά; ☐☐☐ ώρες

9. Μία συνηθισμένη ημέρα εργασίας περιλαμβάνει κάποιο από τα ακόλουθα;
(Παρακαλώ σημειώστε ΝΑΙ ή ΟΧΙ για κάθε ερώτηση)

		Ναι	**Όχι**
α)	Χρήση πληκτρολογίου ή γραφομηχανής για περισσότερες από τέσσερις ώρες συνολικά;	☐	☐
β)	Άλλες εργασίες που περιλαμβάνουν επαναλαμβανόμενες κινήσεις του καρπού ή των δακτύλων για περισσότερες από τέσσερις ώρες συνολικά;	☐	☐
γ)	Επαναλαμβανόμενο λύγισμα και τέντωμα του αγκώνα για περισσότερο από μία ώρα συνολικά;	☐	☐
δ)	Εργασία για περισσότερο από μία ώρα συνολικά με τα χέρια πάνω από το ύψος των ώμων;	☐	☐
ε)	Ανύψωση βάρους 10 κιλών ή περισσότερο με τα χέρια;	☐	☐
στ)	Ανύψωση βάρους 25 κιλών ή περισσότερο με τα χέρια;	☐	☐
ζ)	Ανέβασμα ή κατέβασμα σκάλας σε περισσότερους από 30 ορόφους την ημέρα;	☐	☐
η)	Γονάτισμα ή κάθισμα με τα γόνατα λυγισμένα (για περισσότερο από μία ώρα συνολικά);	☐	☐
θ)	Εργασία με το κομμάτι, κατά την οποία πληρώνεστε σύμφωνα με τον αριθμό των εργασιών που εσείς ή η ομάδα σας ολοκληρώνετε μέσα στη μέρα;	☐	☐
ι)	Υπάρχει ένας συγκεκριμένος αριθμός εργασιών που εσείς ή η ομάδα σας αναμένεται να ολοκληρώσετε μέσα στην ημέρα;	☐	☐
κ)	Πληρώνεστε επιπλέον (μπόνους) εάν κατασκευάσετε ή ολοκληρώσετε περισσότερα από τον συμφωνηθέντα αριθμό αντικειμένων /εργασιών μέσα στην ημέρα;	☐	☐
λ)	Εργάζεστε υπό πίεση για να ολοκληρώσετε εργασία σε συγκεκριμένο χρόνο;	☐	☐

ΠΟΝΟΣ ΣΤΗ ΜΕΣΗ

10. Στη δουλειά σας, έχετε επιλογή στο να αποφασίζετε:

	Συχνά	*Μερικές φορές*	*Σπάνια*	*Ποτέ/ Σχεδόν Ποτέ*
Πώς κάνετε τη δουλειά σας;	☐	☐	☐	☐
Τι κάνετε στη δουλειά;	☐	☐	☐	☐
Το ωράριο εργασίας και τα διαλείμματα;	☐	☐	☐	☐

11. Όταν αντιμετωπίζετε δυσκολίες στη δουλειά, πόσο συχνά σας βοηθάνε ή σας υποστηρίζουν οι συνάδελφοι ή ο προϊστάμενός σας;

Συχνά ☐ Μερικές φορές ☐ Σπάνια ☐ Ποτέ ☐ Δεν ισχύει ☐

12. Παίρνοντας όλα υπόψη, πόσο ικανοποιημένοι είστε από τη δουλειά σας συνολικά;

Πολύ ικανοποιημένος ☐ Ικανοποιημένος ☐ Δυσαρεστημένος ☐ Πολύ δυσαρεστημένος ☐

13. Αν είχατε μια σοβαρή ασθένεια που σας κρατούσε εκτός εργασίας για τρεις μήνες, πόσο σταθερή πιστεύετε ότι θα ήταν η θέση εργασίας σας;

Πολύ σταθερή ☐ Σταθερή ☐ Μάλλον ασταθής ☐ Πολύ ασταθής ☐

14. Έχετε καμία άλλη δουλειά (δουλειές); Όχι ☐ Ναι ☐

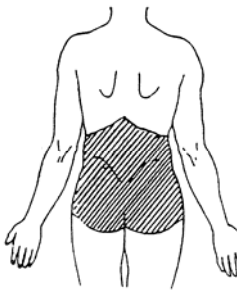
Αν ***ναι,*** ποια (ποιες) είναι η άλλη δουλειά (δουλειές) σας;

_____

ΕΝΟΤΗΤΑ ΤΡΙΑ: ΠΟΝΟΙ

ΟΣΦΥΑΛΓΙΑ ΤΟΥΣ ΠΕΡΑΣΜΕΝΟΥΣ 12 ΜΗΝΕΣ

15α) Στη διάρκεια των περασμένων 12 μηνών, είχατε οσφυαλγία στην περιοχή που φαίνεται παρακάτω και που διήρκεσε περισσότερο από μία μέρα; (μη συμπεριλάβετε πόνους που σχετίζονται μόνο με περίοδο, εγκυμοσύνη ή ασθένεια με πυρετό)



Όχι ☐ Ναι ☐

Αν ***ΟΧΙ***, πάρακαλώ πηγαίνετε στην ερώτηση 21. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Μέσα στους περασμένους 12 μήνες, έχει επεκταθεί ποτέ ο πόνος στο πόδι ή τα πόδια σας μέχρι κάτω από το γόνατο (ισχιαλγία); Όχι ☐ Ναι ☐

ΠΟΝΟΣ ΣΤΗ ΜΕΣΗ

γ). Στη διάρκεια των περασμένων 12 μηνών, αν προσθέσετε όλες τις ημέρες που είχατε οσφυαλγία, πόσες θα ήταν;

1-6 ημέρες ☐ 1-4 εβδομάδες ☐ 1-12 μήνες ☐

δ) Έχετε συμβουλευτεί γιατρό ή φυσικοθεραπευτή, άλλο νοσηλευτικό προσωπικό ή εναλλακτικό πρακτικό (πχ. χειροπρακτικό) εξαιτίας της οσφυαλγίας τους περασμένους 12 μήνες; Όχι ☐ Ναι ☐

ε) Στη διάρκεια των περασμένων 12 μηνών, πόσες μέρες σας εμπόδισε η οσφυαλγία να πάτε στη δουλειά;

0 μέρες ☐ 1-7 μέρες ☐ 8-30 μέρες ☐ Περισσότερες από 30 μέρες ☐

16. Στη διάρκεια των περασμένων 12 μηνών, σας δημιούργησε η οσφυαλγία δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να στέκεστε για περισσότερο από 15 λεπτά	☐	☐	☐
β)	Να κόβετε τα νύχια των ποδιών σας	☐	☐	☐
γ)	Να σηκώνεστε από το πάτωμα ή από μια καρέκλα	☐	☐	☐
δ)	Να ντύνεστε	☐	☐	☐
ε)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐
στ)	Να αλλάζετε πλευρό στο κρεβάτι	☐	☐	☐

17. Πιστεύετε ότι η οσφυαλγία σας θα είναι ένα πρόβλημα μετά από 12 μήνες;

Όχι ☐ Ίσως/ πιθανό ☐ Πολύ πιθανό ☐ Σίγουρα ☐

18. Σκεφτείτε την τελευταία φορά που δεν είχατε οσφυαλγία για διάστημα τουλάχιστον ενός μήνα. Πώς ξεκίνησε το επόμενο επεισόδιο οσφυαλγίας μετά από αυτή την περίοδο;

☐ Ξαφνικά (δηλ. σε λιγότερο από ένα λεπτό), ενώ ήσασταν στη δουλειά

☐ Ξαφνικά (δηλ. σε λιγότερο από ένα λεπτό), αλλά όχι ενώ ήσασταν στη δουλειά

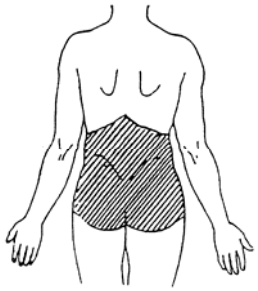
☐ Σταδιακά

ΠΟΝΟΣ ΣΤΗ ΜΕΣΗ

ΟΣΦΥΑΛΓΙΑ ΤΙΣ ΠΕΡΑΣΜΕΝΕΣ 4 ΕΒΔΟΜΑΔΕΣ

Ενδιαφερόμαστε συγκεκριμένα για κάθε πόνο στην πλάτη που μπορεί να είχατε στη διάρκεια των περασμένων 4 εβδομάδων

19α) Στη διάρκεια των περασμένων 4 εβδομάδων, είχατε οσφυαλγία στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία μέρα; (μη συμπεριλάβετε πόνους που σχετίζονται μόνο με περίοδο, εγκυμοσύνη ή ασθένεια με πυρετό)



Όχι ☐ Ναι ☐

Αν ***ΟΧΙ,*** παρακαλώ πηγαίνετε στην ερώτηση 21, αν ***ΝΑΙ,*** παρακαλώ συνεχίστε

β). Τις περασμένες 4 εβδομάδες, αν προσθέσετε όλες τις ημέρες που είχατε οσφυαλγία, πόσες θα ήταν;

1-6 ημέρες ☐ 1-2 εβδομάδες ☐ 2-4 εβδομάδες ☐

γ). Μέσα στις περασμένες 4 εβδομάδες, έχει επεκταθεί ποτέ ο πόνος στο πόδι (πόδια) σας μέχρι και κάτω από το γόνατο (ισχιαλγία);

Όχι ☐ Ναι ☐

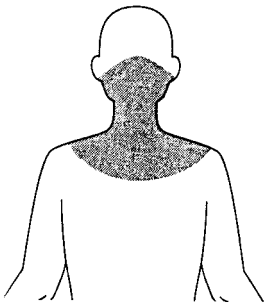
20. Στη διάρκεια των περασμένων 4 εβδομάδων, σας δημιούργησε η οσφυαλγία δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να στέκεστε για περισσότερο από 15 λεπτά	☐	☐	☐
β)	Να κόβετε τα νύχια των ποδιών σας	☐	☐	☐
γ)	Να σηκώνεστε από το πάτωμα ή από μια καρέκλα	☐	☐	☐
δ)	Να ντύνεστε	☐	☐	☐
ε)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐
στ)	Να αλλάζετε πλευρό στο κρεβάτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟΝ ΑΥΧΕΝΑ

ΠΟΝΟΣ ΣΤΟΝ ΑΥΧΕΝΑ ΤΟΥΣ ΤΕΛΕΥΤΑΙΟΥΣ 12 ΜΗΝΕΣ

21α) Στη διάρκεια των περασμένων 12 μηνών, είχατε πόνο στον αυχένα στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



Όχι ☐ Ναι ☐

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 26. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Στη διάρκεια των περασμένων 12 μηνών, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στον αυχένα, πόσες θα ήταν;

1-6 ημέρες ☐ 1-4 εβδομάδες ☐ 1-12 μήνες ☐

γ) Έχετε συμβουλευτεί γιατρό ή φυσικοθεραπευτή άλλο νοσηλευτικό προσωπικό ή εναλλακτικό πρακτικό (πχ χειροπρακτικό) εξαιτίας του πόνου στον αυχένα τους περασμένους 12 μήνες; Όχι ☐ Ναι ☐

δ). Στη διάρκεια των περασμένων 12 μηνών, πόσες μέρες σας εμπόδισε ο πόνος στον αυχένα να πάτε στη δουλειά;

0 ημέρες ☐ 1-7 ημέρες ☐ 8-30 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

22. Στη διάρκεια των περασμένων 12 μηνών, σας δημιούργησε ο πόνος στον αυχένα δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να ντύνεστε	☐	☐	☐
β)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

23. Πιστεύετε ότι ο πόνος στον αυχένα σας θα είναι ένα πρόβλημα μετά από 12 μήνες;

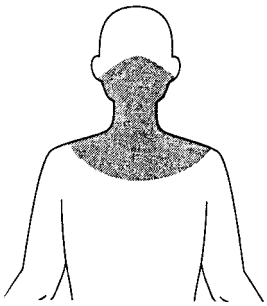
Όχι ☐ Ίσως/ πιθανό ☐ Πολύ πιθανό ☐ Σίγουρα ☐

ΠΟΝΟΣ ΣΤΟΝ ΑΥΧΕΝΑ

ΠΟΝΟΣ ΣΤΟΝ ΑΥΧΕΝΑ ΤΙΣ ΠΕΡΑΣΜΕΝΕΣ 4 ΕΒΔΟΜΑΔΕΣ

Ενδιαφερόμαστε συγκεκριμένα για κάθε πόνο στον αυχένα που μπορεί να είχατε στην διάρκεια των περασμένων 4 εβδομάδων

24 α) Στη διάρκεια των περασμένων 4 εβδομάδων είχατε πόνο στον αυχένα στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



Όχι ☐ Ναι ☐

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 26. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β). Τις περασμένες 4 εβδομάδες, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στον αυχένα, πόσες θα ήταν;

1-6 ημέρες ☐ 1-2 εβδομάδες ☐ 2-4 εβδομάδες ☐

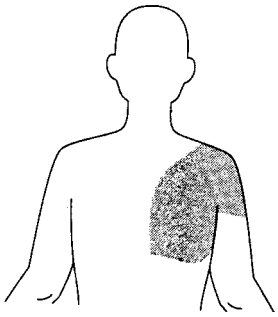
25. Στη διάρκεια των περασμένων 4 εβδομάδων, σας δημιούργησε ο πόνος στον αυχένα δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να ντύνεστε	☐	☐	☐
β)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟΝ ΩΜΟ

ΠΟΝΟΣ ΣΤΟΝ ΩΜΟ ΤΟΥΣ ΤΕΛΕΥΤΑΙΟΥΣ 12 ΜΗΝΕΣ

26 α). Στη διάρκεια των περασμένων 12 μηνών, είχατε πόνο στον ώμο στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



Όχι ☐ Δεξιός ώμος μόνο ☐ Αριστερός ώμος μόνο ☐ Και στους δύο ώμους ☐

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 31. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε.

β) Στη διάρκεια των περασμένων 12 μηνών, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στον ώμο, πόσες θα ήταν;

1-6 ημέρες ☐ 1-4 εβδομάδες ☐ 1-12 μήνες ☐

γ) Έχετε συμβουλευτεί γιατρό ή φυσικοθεραπευτή, άλλο νοσηλευτικό προσωπικό ή εναλλακτικό πρακτικό (πχ. χειροπρακτικό) εξαιτίας πόνου στον ώμο τους περασμένους 12 μήνες; Όχι ☐ Ναι ☐

δ). Στη διάρκεια των περασμένων 12 μηνών, πόσες μέρες σας εμπόδισε ο πόνος στον ώμο να πάτε στη δουλειά;

0 ημέρες ☐ 1-7 ημέρες ☐ 8-30 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

27. Στη διάρκεια των περασμένων 12 μηνών, σας δημιούργησε ο πόνος στον ώμο δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να χτενίζετε ή να βουρτσίζετε τα μαλλιά σας	☐	☐	☐
β)	Να κάνετε μπάνιο /ντους	☐	☐	☐
γ)	Να ντύνεστε	☐	☐	☐
δ)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟΝ ΩΜΟ

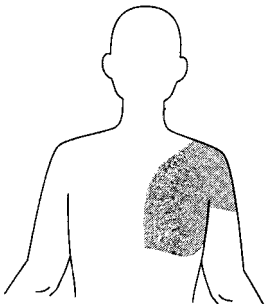
28. Πιστεύετε ότι ο πόνος στον ώμο σας θα είναι ένα πρόβλημα σε διάστημα 12 μηνών;

Όχι ☐ Ίσως / πιθανό ☐ Πολύ πιθανό ☐ Σίγουρα ☐

ΠΟΝΟΣ ΣΤΟΝ ΩΜΟ ΤΙΣ ΤΕΛΕΥΤΑΙΕΣ 4 ΕΒΔΟΜΑΔΕΣ

Ενδιαφερόμαστε συγκεκριμένα για κάθε πόνο στον ώμο που μπορεί να είχατε στη διάρκεια των περασμένων 4 εβδομάδων

29 α) Στη διάρκεια των περασμένων 4 εβδομάδων, είχατε πόνο στον ώμο στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



Όχι ☐ Δεξιός ώμος μόνο ☐ Αριστερός ώμος μόνο ☐ Και στους δύο ώμους ☐

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 31. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Τις περασμένες 4 εβδομάδες, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στον ώμο, πόσες θα ήταν;

1-6 ημέρες ☐ 1-2 εβδομάδες ☐ 2-4 εβδομάδες ☐

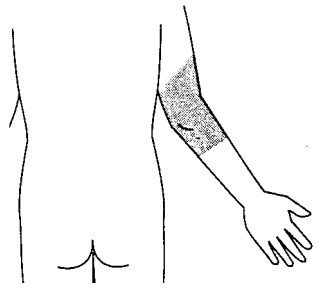
30. Στη διάρκεια των περασμένων 4 εβδομάδων, σας δημιούργησε ο πόνος στον ώμο δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να χτενίζετε ή να βουρτσίζετε τα μαλλιά σας	☐	☐	☐
β)	Να κάνετε μπάνιο /ντους	☐	☐	☐
γ)	Να ντύνεστε	☐	☐	☐
δ)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟΝ ΑΓΚΩΝΑ

ΠΟΝΟΣ ΣΤΟΝ ΑΓΚΩΝΑ ΤΟΥΣ ΠΕΡΑΣΜΕΝΟΥΣ 12 ΜΗΝΕΣ

31α) Στη διάρκεια των περασμένων 12 μηνών, είχατε πόνο στον αγκώνα στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



☐ Όχι

☐ Δεξιός αγκώνας μόνο

☐ Αριστερός αγκώνας μόνο

☐ Και στους δύο αγκώνες

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 36. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Στη διάρκεια των περασμένων 12 μηνών, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στον αγκώνα, πόσες θα ήταν;

1-6 ημέρες ☐ 1-4 εβδομάδες ☐ 1-12 μήνες ☐

γ) Έχετε συμβουλευτεί γιατρό ή φυσικοθεραπευτή, άλλο νοσηλευτικό προσωπικό ή εναλλακτικό πρακτικό (πχ. χειροπρακτικό) εξαιτίας πόνου στον αγκώνα τους περασμένους 12 μήνες; Όχι ☐ Ναι ☐

δ) Στη διάρκεια των περασμένων 12 μηνών, πόσες μέρες σας εμπόδισε ο πόνος στον αγκώνα να πάτε στη δουλειά;

0 ημέρες ☐ 1-7 ημέρες ☐ 8-30 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

32. Στη διάρκεια των περασμένων 12 μηνών, σας δημιούργησε ο πόνος στον αγκώνα δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να ντύνεστε	☐	☐	☐
β)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

33. Πιστεύετε ότι ο πόνος σας στον αγκώνα θα είναι ένα πρόβλημα σε διάστημα 12 μηνών;

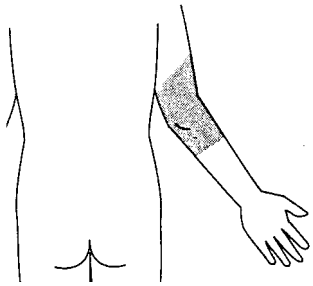
Όχι ☐ Ίσως/ πιθανό ☐ Πολύ πιθανό ☐ Σίγουρα ☐

ΠΟΝΟΣ ΣΤΟΝ ΑΓΚΩΝΑ

ΠΟΝΟΣ ΣΤΟΝ ΑΓΚΩΝΑ ΤΙΣ ΠΕΡΑΣΜΕΝΕΣ 4 ΕΒΔΟΜΑΔΕΣ

Ενδιαφερόμαστε συγκεκριμένα για κάθε πόνο στον αγκώνα που μπορεί να είχατε στη διάρκεια των περασμένων 4 εβδομάδων

34α) Στη διάρκεια των περασμένων 4 εβδομάδων, είχατε πόνο στον αγκώνα στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



☐ Όχι

☐ Δεξιός αγκώνας μόνο

☐ Αριστερός αγκώνας μόνο

☐ Και στους δύο αγκώνες

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 36. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Τις περασμένες 4 εβδομάδες, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στον αγκώνα, πόσες θα ήταν;

1-6 ημέρες ☐ 1-2 εβδομάδες ☐ 2-4 εβδομάδες ☐

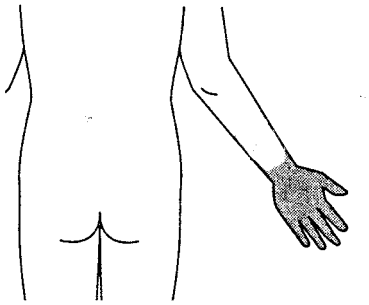
35. Στη διάρκεια των περασμένων 4 εβδομάδων, σας δημιούργησε ο πόνος στον αγκώνα δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να ντύνεστε	☐	☐	☐
β)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟΝ ΚΑΡΠΟ ΚΑΙ ΤΟ ΧΕΡΙ

ΠΟΝΟΣ ΣΤΟΝ ΚΑΡΠΟ ΚΑΙ ΤΟ ΧΕΡΙ ΤΟΥΣ ΠΕΡΑΣΜΕΝΟΥΣ 12 ΜΗΝΕΣ

36α) Στη διάρκεια των περασμένων 12 μηνών, είχατε πόνο στον καρπό ή το χέρι στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



☐ Όχι

☐ Δεξί χέρι ή καρπός μόνο

☐ Αριστερό χέρι ή καρπός μόνο

☐ Και στα δύο χέρια ή καρπούς

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 41. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Τους περασμένους 12 μήνες, αν προσθέσετε μαζί όλες τις ημέρες που είχατε πόνο στον καρπό/χέρι, πόσες θα ήταν;

1-6 ημέρες ☐ 1-4 εβδομάδες ☐ 1-12 μήνες ☐

γ) Έχετε συμβουλευτεί γιατρό ή φυσικοθεραπευτή, άλλο νοσηλευτικό προσωπικό ή εναλλακτικό πρακτικό (πχ. χειροπρακτικό) εξαιτίας πόνου στον καρπό/χέρι τους περασμένους 12 μήνες; Όχι ☐ Ναι ☐

δ) Στη διάρκεια των περασμένων 12 μηνών, πόσες μέρες σας εμπόδισε ο πόνος στον καρπό/χέρι να πάτε στη δουλειά;

0 ημέρες ☐ 1-7 ημέρες ☐ 8-30 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

37. Στη διάρκεια των περασμένων 12 μηνών, σας δημιούργησε ο πόνος στον καρπό/χέρι δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να γράφετε	☐	☐	☐
β)	Να κλειδώνετε και να ξεκλειδώνετε πόρτες	☐	☐	☐
γ)	Να ανοίγετε βάζα ή βρύσες	☐	☐	☐
δ)	Να ντύνεστε	☐	☐	☐
ε)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟΝ ΚΑΡΠΟ ΚΑΙ ΤΟ ΧΕΡΙ

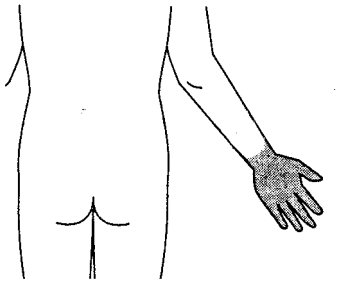
38. Πιστεύετε ότι ο πόνος σας στον καρπό/χέρι θα είναι ένα πρόβλημα μετά από 12 μήνες;

Όχι ☐ Ίσως/ πιθανό ☐ Πολύ πιθανό ☐ Σίγουρα ☐

ΠΟΝΟΣ ΣΤΟΝ ΚΑΡΠΟ ΚΑΙ ΤΟ ΧΕΡΙ ΤΙΣ ΠΕΡΑΣΜΕΝΕΣ 4 ΕΒΔΟΜΑΔΕΣ

Ενδιαφερόμαστε συγκεκριμένα για κάθε πόνο στον καρπό/χέρι που μπορεί να είχατε στη διάρκεια των περασμένων 4 εβδομάδων

39 α) Στη διάρκεια των περασμένων 4 εβδομάδων, είχατε πόνο στον καρπό ή το χέρι στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



☐ Όχι

☐ Δεξί χέρι ή καρπός μόνο

☐ Αριστερό χέρι ή καρπός μόνο

☐ Και στα δύο χέρια ή καρπούς

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 41. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Τις περασμένες 4 εβδομάδες, αν προσθέσετε μαζί όλες τις ημέρες που είχατε πόνο στον καρπό/χέρι, πόσες θα ήταν;

1-6 ημέρες ☐ 1-2 εβδομάδες ☐ 2-4 εβδομάδες ☐

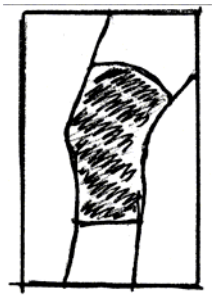
40. Στη διάρκεια των περασμένων 4 εβδομάδων, σας δημιούργησε ο πόνος στον καρπό/χέρι δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να γράφετε	☐	☐	☐
β)	Να κλειδώνετε και να ξεκλειδώνετε πόρτες	☐	☐	☐
γ)	Να ανοίγετε βάζα και βρύσες	☐	☐	☐
δ)	Να ντύνεστε	☐	☐	☐
ε)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΠΟΝΟΣ ΣΤΟ ΓΟΝΑΤΟ

ΠΟΝΟΣ ΣΤΟ ΓΟΝΑΤΟ ΤΟΥΣ ΠΕΡΑΣΜΕΝΟΥΣ 12 ΜΗΝΕΣ

41α) Στη διάρκεια των περασμένων 12 μηνών, είχατε πόνο στο γόνατο στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



☐ Όχι

☐ Δεξί γόνατο μόνο

☐ Αριστερό γόνατο μόνο

☐ Και στα δύο γόνατα

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 46. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Στη διάρκεια των περασμένων 12 μηνών, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στο γόνατο, πόσες θα ήταν;

1-6 ημέρες ☐ 1-4 εβδομάδες ☐ 1-12 μήνες ☐

γ) Έχετε συμβουλευτεί γιατρό ή φυσικοθεραπευτή, άλλο νοσηλευτικό προσωπικό ή εναλλακτικό πρακτικό (πχ. χειροπρακτικό) εξαιτίας πόνου στο γόνατο τους περασμένους 12 μήνες; Όχι ☐ Ναι ☐

δ) Στη διάρκεια των περασμένων 12 μηνών, πόσες μέρες σας εμπόδισε ο πόνος στο γόνατο να πάτε στη δουλειά;

0 ημέρες ☐ 1-7 ημέρες ☐ 8-30 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

42. Στη διάρκεια των περασμένων 12 μηνών, σας δημιούργησε ο πόνος στο γόνατο δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να ανεβαίνετε και να κατεβαίνετε σκάλες	☐	☐	☐
β)	Να περπατάτε σε επίπεδο έδαφος	☐	☐	☐
γ)	Να ντύνεστε	☐	☐	☐
δ)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

43. Πιστεύετε ότι ο πόνος σας στο γόνατο θα είναι ένα πρόβλημα μετά από 12 μήνες;

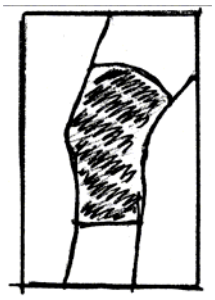
Όχι ☐ Ίσως/ πιθανό ☐ Πολύ πιθανό ☐ Σίγουρα ☐

ΠΟΝΟΣ ΣΤΟ ΓΟΝΑΤΟ

ΠΟΝΟΣ ΣΤΟ ΓΟΝΑΤΟ ΤΙΣ ΠΕΡΑΣΜΕΝΕΣ 4 ΕΒΔΟΜΑΔΕΣ

Ενδιαφερόμαστε συγκεκριμένα για κάθε πόνο στο γόνατο που μπορεί να είχατε στην διάρκεια των περασμένων 4 εβδομάδων

44 α) Στη διάρκεια των περασμένων 4 εβδομάδων είχατε πόνο στο γόνατο στην περιοχή που φαίνεται παρακάτω που διήρκεσε περισσότερο από μία ημέρα;



☐ Όχι

☐ Δεξί γόνατο μόνο

☐ Αριστερό γόνατο μόνο

☐ Και στα δύο γόνατα

Αν ***ΟΧΙ***, παρακαλώ πηγαίνετε στην ερώτηση 46. Αν ***ΝΑΙ***, παρακαλώ συνεχίστε

β) Τις περασμένες 4 εβδομάδες, αν προσθέσετε όλες τις ημέρες που είχατε πόνο στο γόνατο, πόσες θα ήταν;

1-6 ημέρες ☐ 1-2 εβδομάδες ☐ 2-4 εβδομάδες ☐

45. Στη διάρκεια των περασμένων 4 εβδομάδων, σας δημιούργησε ο πόνος στο γόνατο δυσκολία ή αδυναμία στο να κάνετε οποιαδήποτε από τις παρακάτω δραστηριότητες;

		Όχι	*Δύσκολο*	*Αδύνατο*
α)	Να ανεβαίνετε και να κατεβαίνετε σκάλες	☐	☐	☐
β)	Να περπατάτε σε επίπεδο έδαφος	☐	☐	☐
γ)	Να ντύνεστε	☐	☐	☐
δ)	Να κάνετε τις δουλειές που συνήθως κάνετε στο σπίτι	☐	☐	☐

ΕΝΟΤΗΤΑ ΤΕΣΣΕΡΑ ΠΟΝΟΙ ΑΛΛΩΝ ΑΝΘΡΩΠΩΝ

ΟΣΦΥΑΛΓΙΑ

46. Ξέρετε οποιονδήποτε που είχε οσφυαλγία στους περασμένους 12 μήνες εντός κι εκτός δουλειάς;

α) Στη δουλειά Όχι ☐ Ναι ☐

β) Εκτός δουλειάς Όχι ☐ Ναι ☐

ΠΟΝΟΣ ΣΤΟΝ ΑΥΧΕΝΑ

47. Ξέρετε οποιονδήποτε που είχε πόνο στον αυχένα στους περασμένους 12 μήνες εντός κι εκτός δουλειάς;

α) Στη δουλειά Όχι ☐ Ναι ☐

β) Εκτός δουλειάς Όχι ☐ Ναι ☐

ΠΟΝΟΣ ΣΤΟ ΩΜΟ, ΑΓΚΩΝΑ, ΚΑΡΠΟ Ή ΧΕΡΙ

48. Ξέρετε οποιονδήποτε που είχε πόνο στον ώμο, τον αγκώνα, τον καρπό ή το χέρι στους περασμένους 12 μήνες εντός κι εκτός δουλειάς;

α) Στη δουλειά Όχι ☐ Ναι ☐

β) Εκτός δουλειάς Όχι ☐ Ναι ☐

ΠΟΝΟΣ ΣΤΟ ΓΟΝΑΤΟ

49. Ξέρετε οποιονδήποτε που είχε πόνο στο γόνατο στους τελευταίους 12 μήνες εντός κι εκτός δουλειάς;

α) Στη δουλειά Όχι ☐ Ναι ☐

β) Εκτός δουλειάς Όχι ☐ Ναι ☐

ΕΝΟΤΗΤΑ ΠΕΝΤΕ: ΟΙ ΑΠΟΨΕΙΣ ΣΑΣ ΓΙΑ ΤΙΣ ΑΙΤΙΕΣ ΚΑΙ ΤΗΝ ΠΡΟΛΗΨΗ ΤΟΥ ΠΟΝΟΥ

50. Βασιζόμενοι στις δικές σας απόψεις και σε ό,τι ο γιατρός ή άλλοι μπορεί να σας έχουν πει σχετικά με τον πόνο στον ώμο, τον αγκώνα, τον καρπό ή το χέρι, πόσο σύμφωνοι είστε με τις παρακάτω δηλώσεις; (σημειώστε ένα κουτάκι σε κάθε σειρά).

Αν κάποιος έχει αυτό το πρόβλημα…	*Διαφωνώ πλήρως*	*Τείνω να διαφωνήσω*	*Αβέβαιος*	*Τείνω να συμφωνήσω*	*Συμφωνώ πλήρως*
…η φυσική δραστηριότητα θα πρέπει να αποφεύγεται καθώς μπορεί να βλάψει τον ώμο, τον αγκώνα, τον καρπό ή το χέρι	☐	☐	☐	☐	☐
…αυτά τα προβλήματα συνήθως καλυτερεύουν μέσα σε τρεις μήνες	☐	☐	☐	☐	☐
…χρειάζεται ξεκούραση για να καλυτερεύσει κανείς	☐	☐	☐	☐	☐
…η παραμέληση προβλημάτων αυτού του είδους μπορεί να προκαλέσει μόνιμα προβλήματα στην υγεία	☐	☐	☐	☐	☐
…αυτά τα προβλήματα συχνά προκαλούνται από την εργασία κάποιου	☐	☐	☐	☐	☐

51. Βασιζόμενοι στις δικές σας απόψεις και σε ό,τι ο γιατρός ή άλλοι μπορεί να σας έχουν πει σχετικά με την οσφυαλγία, πόσο σύμφωνοι είστε με τις παρακάτω δηλώσεις; (σημειώστε ένα κουτάκι σε κάθε σειρά)

Αν κάποιος έχει αυτό το πρόβλημα…	*Διαφωνώ πλήρως*	*Τείνω να διαφωνήσω*	*Αβέβαιος*	*Τείνω να συμφωνήσω*	*Συμφωνώ πλήρως*
…η φυσική δραστηριότητα θα πρέπει να αποφεύγεται καθώς μπορεί να βλάψει τη μέση	☐	☐	☐	☐	☐
…αυτά τα προβλήματα συνήθως καλυτερεύουν μέσα σε τρεις μήνες	☐	☐	☐	☐	☐
…χρειάζεται ξεκούραση για να καλυτερεύσει κανείς	☐	☐	☐	☐	☐
…η παραμέληση προβλημάτων αυτού του είδους μπορεί να προκαλέσει μόνιμα προβλήματα στην υγεία	☐	☐	☐	☐	☐

ΑΙΤΙΕΣ ΚΑΙ ΠΡΟΛΗΨΗ

	Διαφωνώ πλήρως	*Τείνω να διαφωνήσω*	*Αβέβαιος*	*Τείνω να συμφωνήσω*	*Συμφωνώ πλήρως*
…αυτά τα προβλήματα συνήθως προκαλούνται από την εργασία κάποιου	☐	☐	☐	☐	☐

52. Έχετε ακούσει ή διαβάσει ποτέ σχετικά με τον επαναλαμβανόμενο τραυματισμό πίεσης (RSI), τη διαταραχή άνω άκρου σχετιζόμενη με την εργασία (WRULD) ή το σύνδρομο αθροιστικού τραύματος (CTS);

Όχι ☐ Ναι ☐

ΕΝΟΤΗΤΑ ΕΞΙ: Η ΥΓΕΙΑ ΣΑΣ ΓΕΝΙΚΟΤΕΡΑ

ΠΕΡΑΣΜΕΝΕΣ 7 ΗΜΕΡΕΣ

53. Παρακάτω βρίσκεται μια λίστα από σχετικά συχνά προβλήματα που παρουσιάζονται κάποιες φορές. Διαβάστε κάθε ένα προσεκτικά και κυκλώστε τον αριθμό που περιγράφει καλύτερα ΠΟΣΟ ΠΟΛΥ ΣΑΣ ΤΑΛΑΙΠΩΡΗΣΕ Ή ΕΝΟΧΛΗΣΕ ΑΥΤΟ ΤΟ ΠΡΟΒΛΗΜΑ ΣΤΗ ΔΙΑΡΚΕΙΑ ΤΩΝ ΠΕΡΑΣΜΕΝΩΝ 7 ΗΜΕΡΩΝ ΣΥΜΠΕΡΙΛΑΜΒΑΝΟΜΕΝΗΣ ΚΑΙ ΤΗΣ ΣΗΜΕΡΙΝΗΣ.
Κυκλώστε μόνο έναν αριθμό για κάθε πρόβλημα και μην παραλείψετε κανένα

	Καθόλου	*Λίγο*	*Μέτρια*	*Αρκετά*	*Πάρα πολύ*
α) Τάση λιποθυμίας ή ζάλη	0	1	2	3	4
β) Πόνοι στην καρδιά ή το στήθος	0	1	2	3	4
γ) Ναυτία ή ανακατωμένο στομάχι	0	1	2	3	4
δ) Δυσκολία στην αναπνοή	0	1	2	3	4
ε) Μούδιασμα ή τσιμπήματα σε μέρη του σώματός σας	0	1	2	3	4
στ) Αίσθημα αδυναμίας σε μέρη του σώματός σας	0	1	2	3	4
ζ) Εξάψεις ή ρίγη	0	1	2	3	4

ΑΙΤΙΕΣ ΚΑΙ ΠΡΟΛΗΨΗ

ΠΕΡΑΣΜΕΝΕΣ 4 ΕΒΔΟΜΑΔΕΣ

54. Αυτές οι ερωτήσεις είναι για το πώς αισθανόσασταν **στη διάρκεια των περασμένων 4 εβδομάδων.** Για κάθε ερώτηση, παρακαλώ δώστε μία απάντηση που πλησιάζει περισσότερο στο πώς αισθανόσασταν. *Κυκλώστε **έναν αριθμό** σε κάθε γραμμή.*

Στη διάρκεια των **περασμένων 4 εβδομάδων:**

	Πάντα	***Τον περισσότερο χρόνο***	***Μεγάλη περίοδο του χρόνου***	***Μικρή περίοδο του χρόνου***	***Λίγο***	***Καθόλου***
α) Αισθανόσασταν γεμάτος ζωή;	1	2	3	4	5	6
β) Ήσασταν πολύ αγχωμένος;	1	2	3	4	5	6
γ) Αισθανθήκατε τόσο πεσμένος που τίποτα δε μπορούσε να σας φτιάξει το κέφι;	1	2	3	4	5	6
δ) Αισθανόσασταν ήρεμος και γαλήνιος;	1	2	3	4	5	6
ε) Είχατε πολλή ενεργητικότητα;	1	2	3	4	5	6
στ) Αισθανόσασταν απογοητευμένος και θλιμμένος;	1	2	3	4	5	6
ζ) Αισθανόσασταν εξουθενωμένος;	1	2	3	4	5	6
η) Ήσασταν ευτυχισμένος;	1	2	3	4	5	6
θ) Αισθανόσασταν κουρασμένος;	1	2	3	4	5	6

ΠΕΡΑΣΜΕΝΟΙ 12 ΜΗΝΕΣ

55. Τους περασμένους 12 μήνες, πόσες μέρες συνολικά σας εμπόδισε να πάτε στη δουλειά

α) ένα πρόβλημα στη μέση, τον αυχένα, τον αγκώνα, τον καρπό , το χέρι ή τα γόνατα;

0 ημέρες ☐ 1-7 ημέρες ☐ Περισσότερες από 7 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

β) άλλη ασθένεια

0 ημέρες ☐ 1-7 ημέρες ☐ Περισσότερες από 7 ημέρες ☐ Περισσότερες από 30 ημέρες ☐

ΕΥΧΑΡΙΣΤΟΥΜΕ ΓΙΑ ΤΗ ΣΥΝΕΡΓΑΣΙΑ ΣΑΣ

ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ
UNIVERSITY OF CRETE

ΤΜΗΜΑ ΙΑΤΡΙΚΗΣ
FACULTY OF MEDICINE

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Αγαπητέ κύριε/ κυρία

Με αυτό το γράμμα θα θέλαμε να σας ζητήσουμε να συμμετέχετε σε μια μελέτη για τα μυοσκελετικά συμπτώματα (ενοχλήσεις στη μέση, αυχένα, άνω άκρα) που εμφανίζονται σε διαφορετικές επαγγελματικές ομάδες. Η μελέτη πραγματοποιείται από τον Τομέα Κοινωνικής Ιατρικής της Ιατρικής Σχολής του Πανεπιστημίου Κρήτης (υπεύθυνος: κ. Ε.Κογεβίνας, Καθηγητής) και αποτελεί τμήμα μιας διεθνούς μελέτης για τα μυοσκελετικά συμπτώματα σε άτομα με διαφορετικό πολιτισμικό και κοινωνικό υπόβαθρο.

Η έρευνα αυτή έχει ως στόχο: 1) Να μετρήσει τη συχνότητα των μυοσκελετικών συμπτωμάτων σε διαφορετικές επαγγελματικές ομάδες.

2) Να διερευνήσει πιθανούς παράγοντες κινδύνου για την εμφάνιση και παραμονή των συμπτωμάτων αυτών, όπως και για την πιθανή σωματική αναπηρία που προκύπτει από αυτά.

Τα μυοσκελετικά ενοχλήματα επιβαρύνουν συχνά την ποιότητα υγείας του ατόμου που πάσχει και μπορεί να συνδυάζονται με πεσμένη διάθεση, απώλεια της ενεργητικότητας, χαμηλή ικανοποίηση από τη δουλειά και κακές εργασιακές σχέσεις.

Παρακαλούμε διαβάστε προσεκτικά αυτό το γράμμα και αν συμφωνείτε να συμμετέχετε, υπογράψετε και συμπληρώστε το ερωτηματολόγιο που ακολουθεί.

Οι απαντήσεις σας θα χρησιμοποιηθούν μόνο για την ανάλυση των αποτελεσμάτων της έρευνας και σας βεβαιώνουμε ότι θα τηρηθεί απόλυτα το απόρρητο των απαντήσεών σας.

Ευχαριστούμε για τη συνεργασία σας.

Ο/Η συμμετέχων

ΗΡΑΚΛΕΙΟ/ ΗΜΕΡΟΜΗΝΙΑ: