Ways of Coping With Pain in The Elderly: Turkey Sample

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Abstract

Background: The study presented, widespread pain is prevalent in the community such as headache, tooth ache, stomach pain, backache, knee and leg pain which the elderly seek treatment for at health care organizations as well as traditional medicine.

Objective: This research was conducted to identify ways of coping with pain in the elderly aged 65 and above.

Methodology: This study is descriptive. The study population was taken from those aged 65 and above in the city centers of Canakkale, Mersin, Malatya and Erzurum out of 61,857 a total of 1053 participants took place in the study. Data was collected using a questionnaire which was conducted in a face to face interview method. The study was completed with volunteers. The data was evaluated using frequencies and means on the computer.

Results: According to the results 35.9% of the elderly used analgesic that were in the home to cope with pain, 26.9% resorted to a health care provider, 20.0% waited for the pain to go away 17.2 % used various Traditional Methods (TMs) of relieving pain at home other than medication.

Conclusions: Based on these results, there is a lack of desire in seeking assistance from a health care provider. Which is thought to be a key factor in why TM delays early diagnosis and treatment in the elderly.

Key words: Elderly, teeth, head, stomach pain, back ache, knee, leg pain ways to cope with

Introduction

The elderly population is growing in the world and in our country. Pain in the elderly is a common problem, which is an unpleasant sensory and emotional experience (Hamzaoğlu et al., 2006). According to the results of studies conducted on residents living in nursing homes abroad, the incidence of severe pain is between 27% to 83%. In Turkey the prevalence of pain seen is 25% to 50%. It has been reported that the frequency of pain that can not be treated is 45% to 80% (Yıldız et al., 2009). The prevalence of complaints of pain increases with age (Erdine et al., 2003). 58% to %70 of adults over the age of 65 in particular are affected by cronic pain (Kemp et al., 2005). Random studies conducted on elderly patients in Australia have
found that the chronic pain is at a peak in men aged from 65-69 which accounts for 27% of the male population and in women aged 80-84 which accounts for 31% of females respectively. According to the results of another study conducted in Australia it was found that the prevalence of chronic pain was at 51% for those aged 65-74 and at 55% for those aged above 85 (Blyth et al., 2001).

Pain is known to be frequent at an advanced age (Jakobsson 2004; Blomqvist & Hallberg, 2002). Despite treatment pain management is not very clear (Jakobsson 2004). There are pharmacological and non pharmacological variety ways to cope with pain of elderly people (Jakobsson 2004; Blomqvist & Hallberg, 2002). Among the non pharmacological methods used to control pain there are various methods that can be adopted such as TENS (Transcutaneous Electric Nerve Stimulation), massage, relaxation, hot and cold applications. Non pharmacological methods are applied on their own or together with painkillers (Jakobsson 2000). Cognitive methods in Non pharmacological ways to deal with pain include redirecting attention to other areas, relaxation, bio feedback, talking about the pain, stress control and participation in support groups for pain management (Blomqvist & Hallberg, 2002). Another widely accepted way of dealing with pain has been TMs. In a study conducted in the rural eastern areas of Turkey has shown that TMs methods are widely used in pain management. Some of these methods are known to have an incomparable threat on human health (Tortumlu et al., 2004).

Pain is frequently encountered in adults aged 65 and over and is an important public health issue however there has not been sufficient studies on ways to cope with pain. The data to be obtained from this study will contribute to the practical work of healthcare staff that frequently encounter these patients such as neurology, physical treatment and algology staff and also those people, especially public health nurses, that play an active role in detecting these patients in the field and directing them to healthcare facilities. In addition the application of TMs can create side effects and may delay the diagnosis and treatment. Awareness about the probability of such applications can be achieved. This study was conducted to identify ways of coping with pain in the elderly aged 65 and above.

Methods

Study design and Study Population

This study was performed during the March 2006-March 2007 as descriptive. The research was conducted in the centers of four of Turkeys different provinces. Data obtained from the various provinces are as follows Canakkale (n=6,174), Erzurum (n=13,439), Mersin (n=33,086) and Malatya (n=9,158) consisted of 61,857 people aged 65 and above. Population in the City centres are in no means a criteria forth the determination of any of this study but were within easy reach of researchers.

The data for the population research was taken into consideration when given the density of the population when conducting this study. The study was completed by interviewing 1053 participants using the face-to-face interview technique within the 6 month period. The formula used in the selection of the sampling frequency was taken knowing the population of the region. 0.05 margin of error with the sampling was determined as 375 individuals that were included in the sample group of people. In a six month time span in the four provinces those who agreed to participate in the study were included knowing that they were able to understand the survey questions were included the study. Verbal consent was obtained from study participants. The study conducted in the four provinces were conducted in a sequential six month period from March 2006 to August 2006. The survey forms were completed by the investigators anywhere they could reach the elderly and could fill in the surveys. There were no limitations imposed on the researchers in regards to time or day for surveying.

The data collected by researchers in the four provinces were combined at the end of a 6 month period. The sampling method was achieved by interviewing 126 elderly in Canakkale, 275 in Mersin, 350 in Malatya and 302 in Erzurum in total 1053 elderly were interviewed in order to obtain the relevant data. This was the required number of individuals that were interviewed in order to reach the required population of 375 people. The survey form consisted of questions that described the socio-demographic and ways of coping with pain of
the elderly. A pilot application was carried out before administering the survey.

Statistical Analysis
The data were analyzed in the computer using the SPSS package program. Data distributions 95% confidence intervals of the percentages, were calculated for all items.

Results
There were two subheadings discovered in this study. Socio demographic characteristics of the elderly (Table 1) and ways of coping with pain (Table 2).

1. Socio-demographic characteristics
The age range of the study participants was 65 to 98 years with a mean value of 70.59±5.73 and 56.7% were female, 68.9% were married, 33.3% were primary school graduates and 93% had health assurance. The mean monthly income was 496.08±356.79 Turkish Lira. Most of the elderly were housewives or retired and 53.8% perceived their financial status as normal. 62.5% lived in nucleus families and 96% had a child (Table 1).

Table 1. Distribution of Socio-demographic characteristics (n=1053)

<table>
<thead>
<tr>
<th>Socio-demographic characteristics</th>
<th>n</th>
<th>%</th>
<th>Socio-demographic characteristics</th>
<th>n</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>City</td>
<td></td>
<td></td>
<td>Gender</td>
<td></td>
<td></td>
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<tr>
<td>Canakkale</td>
<td>126</td>
<td>12.0</td>
<td>Male</td>
<td>456</td>
<td>43.3</td>
</tr>
<tr>
<td>Mersin</td>
<td>275</td>
<td>26.1</td>
<td>Female</td>
<td>597</td>
<td>56.7</td>
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<tr>
<td>Malatya</td>
<td>350</td>
<td>33.2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Erzurum</td>
<td>302</td>
<td>28.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>725</td>
<td>68.9</td>
<td>Illiterate</td>
<td>291</td>
<td>27.6</td>
</tr>
<tr>
<td>Single</td>
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<td>Literate</td>
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<td>16.9</td>
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<tr>
<td>Widow/Divorced</td>
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<td>30.0</td>
<td>Primary graduate</td>
<td>351</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Secondary school graduate</td>
<td>96</td>
<td>9.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High school graduate</td>
<td>95</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>University graduate</td>
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<td>979</td>
<td>93.0</td>
<td>Public Servant</td>
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<tr>
<td>No</td>
<td>74</td>
<td>7.0</td>
<td>Worker</td>
<td>14</td>
<td>1.3</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Self employed</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Retired</td>
<td>262</td>
<td>24.9</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>House wife</td>
<td>521</td>
<td>49.5</td>
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<td></td>
<td></td>
<td>Unemployed</td>
<td>15</td>
<td>1.4</td>
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<tr>
<td>Economic Status</td>
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<td></td>
<td>Family Type</td>
<td></td>
<td></td>
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<tr>
<td>Very good</td>
<td>16</td>
<td>1.5</td>
<td>Core</td>
<td>658</td>
<td>62.5</td>
</tr>
<tr>
<td>Good</td>
<td>180</td>
<td>17.1</td>
<td>Extended</td>
<td>329</td>
<td>31.2</td>
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<tr>
<td>Normal</td>
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<td>53.8</td>
<td>Broken</td>
<td>66</td>
<td>6.3</td>
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<tr>
<td>Bad</td>
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<td>20.7</td>
<td></td>
<td></td>
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<tr>
<td>Terrible</td>
<td>72</td>
<td>6.8</td>
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<tr>
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<td>Cronic illness</td>
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<td></td>
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<tr>
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<td>1011</td>
<td>96.0</td>
<td>Yes</td>
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<td>62.6</td>
</tr>
<tr>
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<td>42</td>
<td>4.0</td>
<td>No</td>
<td>374</td>
<td>37.4</td>
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</table>

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2. Ways of coping with pain

Prefered ways elderly cope with pain

The study results show that 35.9% of the subjects used the analgesics present at home for pain, 26.9% went to a healthcare facility, 20.0% waited for the pain to resolve spontaneously and 17.2% tried to find ways to decrease the pain at home other than drugs (Graphic 1).

Ways the elderly cope with headache

Massaging the forehead (30.7%), going to a healthcare facility (30.1%), and wrapping the head tightly (11.7%) were the most common methods used for headache. The other ways of coping are shown in Graphic 2.

Ways the elderly cope with toothache

A healthcare facility was used by 48.6% while 15.2% applied aspirin and 14.6% cotton soaked in cologne over the painful tooth. Other ways of coping are shown in Graphic 3.

Ways the elderly cope with stomach pain

A healthcare facility was used by 31.1% while 15.1% used massage over the painful regions and 11.3% hot or cold application. Other ways of coping are shown in Graphic 4.

Ways the elderly cope with back pain

Massaging the painful region was used by 26.9% while 24.2% had gone to the healthcare facility. Other ways of coping have been shown in Graphic 5.

Ways the elderly cope with leg and knee pain

Massaging the painful region was used by 34.2% of the subjects while 26.5% went to a healthcare facility. Other methods of coping with knee and leg pain are shown in Graphic 6.
Graphic 3. Ways the elderly cope with toothache

- Going to a healthcare facility: 48.6%
- Waiting for it to resolve spontaneously: 15.2%
- Distraction: 1.6%
- Putting cotton soaked in cologne over the painful tooth: 14.6%
- Putting aspirin over the painful tooth: 6%
- Putting salt over the painful tooth: 2.8%
- Patients with total dental prosthesis: 6.6%
- Other (music, daydreaming, relaxation exercises): 4.5%

Graphic 4. Ways the elderly cope with stomach pain

- Going to a healthcare facility: 31.1%
- Waiting for it to resolve spontaneously: 15.1%
- Diet: 8.5%
- Massage: 1.8%
- Relaxation exercises: 1.7%
- Distraction: 11.3%
- Hot/cold application: 6.8%
- Drinking soda: 6.2%
- Drinking warm drinks: 1.8%
- Drinking thyme water: 0.9%
- Other (music, daydreaming, relaxation exercises, drinking sugary liquid): 9.2%
**Discussion**

The research was conducted in the centers of four of Turkey's different provinces. The reason for this was that we gather that they have different cultural and sociodemographic features, this was important in the terms of the diversity of this study. For 35.9% of the elderly in this study the first choice of pain management was to use painkillers in the house, 26.9% consulted a health institution, 20% expected the pain to go away on its own and 17.2% mentioned that they tried different methods of pain management in the home environment. Consistent with our results, use of analgesic use had been high on the agenda as proved...
consistent with other studies (Barry et al., 2004; Blomqvist & Edberg, 2002; Kung et al., 2000).

Frequent usage of analgesics in the elderly in Blomqvist and Hallbergs (2002) studies was indicated at 35%, in Conn’s (1990) studies it was 55%, in Davis and Atwood’s (1996) studies analgesic use was recorded at 80%. In studies carried out by Ferrell and Ferrell (1990) analgesic use was at noted at 90%. In these studies drugs the elderly referred to were drugs that had been previously prescribed to them and had not been consumed, painkillers that belong to other family members or unknown analgesics that were not considered to be suitable for their use. One third of the elderly people in this study were unaware of the risks of using non prescription drugs. Approximately one fifth of the people in this study used the wait till it goes away approach which is a situation that causes a delay in early diagnosis and treatment. Other methods the elderly cope with pain is by applying TMs. It has been emphasised that some of the applications administered in TMs is a health hazard. In this study we have found the ways that the elderly cope with pain is health threatening with unintended results is remarkable.

Coping with pain, intensity of the pain, emotional stress, physical function, disability all depend on other psychosocial conditions. Focusing your attention to other areas, convincing one self, reassess the pain, denying ones pain, praying or hope and it has been found that social support is complex or is inadequate (Tan et al., 2005). Blomqvist and Edberg (2002) pain management strategies have worked in a group of people aged 75 and above. The most commonly used method was the use of drugs 86% methods such as watching television, reading, meeting with friends was 68%, resting 67%, physiotherapy, walking, and other activities such as household chores that increase mobility 66%. Barry et al. (2004), 78 % used analgesics as a way of coping with pain. Exercise 35 % cognitive methods of coping with pain 27% religious pursuits 21 % and restriction of activity was 20 %. It was found that the four strategies used was effective in more than half of the people who used them.

These strategies medical treatment 80% physiotherapy 56% complimentary therapies and 55 % and being persistent 52%. Those with pain originating from the musculoskeletal system, use analgesic drugs much more than those due to other causes of pain. In the studies of Kung et al. (2000) the most commonly used ways to cope with pain were to apply a heat application 83% endeavours to focus the mind on other issues 82% prescription drugs 81% potive thinking 72%. In the studies of Kemp et al (2005) exercising regularly apart from the use of analgesics 58% praying 53 % and applying heat and cold treatments 48% were other ways of coping. In the studies of Barry et al (2004) was shown that some types of exercise are used as strategies to cope with pain. This is consistent with the positive effect in the treatment of degenerative disorders of the musculoskeletal system. Ways of coping with headache in the present study were massaging the forehead 30.7% going to a health care institution 30.1 % wrapping the head tightly 8.9 % waiting for the pain to go away 8.9 % and having a warm or cold shower, wrapping potatoes around the forehead, to read the evil prayer resting, methods such as listening to music and daydreaming. Yigitbas and Yeltkin’s (2009) studies reported the first choice method was to use drugs that were in the home. Studies of the subject suggest that TM is used as a way of coping with pain.

A study conducted in rural eastern Turkey has shown that the elderly use traditional methods. These consisted of 47.4% wrapped potatoes around the forehead, and 52.6% wrapped the head tightly (Tortumluoğlu et al., 2004) Another study has reported of 31 % of individuals with headaches wrapping potatoes around the forehead, 17 % wetting the head with cold water, 13 % massaging the head with herbal oils, 11 % would rest and 2 % would pray (Sezgin et al., 2009). The results of our studies are similar to the results of other studies. However two thirds of the elderly do not go to health care facilities for early diagnosis and this is an undesirable delay in the terms of treatment. Among the reasons for not choosing to go to a health care provider is the lack of economical resources, complex and lengthy procedures at the hospitals, painful procedures, and the general dissatisfaction of health care professionals and healthcare institutions (Özyazicioglu & Oncel 2012).

Ways of coping with toothache, to contact a healthcare provider 48.6 % to put aspirin on the aching tooth 15.2% or to place cotton with eau
de cologne on the tooth 14.6% and to focus on other things 21.6%. Another study has reported wide use of traditional methods to cope with toothache such as pulling the tooth out with a string, having the barber pull it out, or putting methylated spirits, cologne, battery acid, salt, soda or wild herbs on the tooth (Tortumluoğlu et al., 2004).

In another study in coping with toothache it was found that the first application was to put salt on the aching tooth (Yiğitbaş & Yetkin 2009). The results of our studies are similar to the results of other studies however practices such as putting battery acid on the tooth do have dangerous consequences such as death. The first choice in dental pain should be to seek assistance from a health care provider, pain severity and the general temporary practices is the general judgment for not seeking professional treatment.

Ways of coping with stomach pain are as follows to contact your health care provider 31.1% massage the painful area 15.1% wait for the pain to go away 11.5% apply a hot/cold application 11.3% music, daydreaming, breathing exercises, drinking sugary liquid 9.2% diet 8.5% and 13.3% massage, relaxation exercises, distraction, drinking soda, warm drinks or thyme juice Tortumluoğlu et al. (2004) have reported that 63% of the elderly use traditional methods to cope with gastric pain. The mentioned TM methods are milk, yoghurt juice, mint, drinking cold drinks 67.4% eating honey yoghurt 21.4% waking and massage 10.9%. In a study conducted by Yigitbas & Yetkin (2009) it was found that adults waited for the stomach pain to go away. According to the results of our studies approximately one third of the elderly prefer to go to a health care provider, two thirds prefer to apply TM methods.

Ways of coping with back pain were massaging the painful region 26.9%, going to a healthcare facility 24.2%, application of hot substances (Turkish “yaki”) 11.8%, waiting for it to resolve spontaneously 10.4%, rest 8.6%, and taking a bath, relaxation exercises, cupping, applying oils, music, daydreaming, distraction, breathing techniques and hot applications at 18.1%. A quarter of the elderly prefer to go to a health care provider for back pain. The rest prefer to apply TM methods. In a study that was conducted among individuals with back pain 33% prefer to have a lemon and olive oil massage 11% rest 25% prefer cupping and the application of hot substances (Turkish “yaki”) and 9% prefer to have their back manipulated by having someone walk on them (Sezgin et al., 2009). In both our study and the other studies we have noticed that the first choice has been massage. The barriers in contacting a health care provider, early diagnosis a delay in the treatment are all unintended results of TM.

Methods used to cope with knee and leg pain were massaging the painful region (34.2%), going to a healthcare provider (26.5%), distraction (11%), waiting for it to resolve spontaneously (7.3%), and other methods such as hot baths, relaxation exercises, distraction, application of hot substances, rest, cupping, applying oil, heat application and walking (21%). Patients with hip knee and other joint problems often use physical activities and rest, it has been found that many of them do not try to protect the joint, avoid cold weather or applying the TENS method (Blomqvist & Hallberg 2002).

In conclusion of our studies we have found that about three quarters of the elderly do not seek assistance from a health care provider they tend to use pain killers that are in the home. According to our research we have found ways people try to cope with pain have been headache approximately 70% almost half of those with tooth ache two thirds of those with stomach pain back knee and leg pain three quarters prefer non pharmacological treatment methods. Another thing that we have noticed is that in back, leg and knee pain the prefered method of treatment was massage. Based on these results, there is a lack of desire in seeking assistance from a health care provider. Which is thought to be a key factor in why TM delays early diagnosis and treatment in the elderly.

**Acknowledgments**
We would like to thank Lecturer Handan Sezgin, Nurse Necla Bulut and Nurse Pinar Avci for their support in the collection of data in Canakkale, Merve Gul Korkut for her support in the collection of data in Malatya, Tekin Cetinkaya for translating our study from Turkish to English.

**References**
Barry LC, Kerns RD, Guo Z (2004). Identification of strategies used to cope with chronic pain in older persons receiving primary care from a Veterans


