



Clarifying Individual Predictors of Musculoskeletal Pain Inhibition and Expression in Housewives: a Qualitative Study

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ABSTRACT

Aims: The expansion of the female population in the society and the high prevalence of Musculoskeletal Disorders (MSDs) is a significant issue because these disorders directly affect the quality of life and lead to a inability and also an increase in individual and social costs. Therefore, the present study was conducted with the aim of explaining the predictors related to MSDs in women who are housewives.

Method and Materials: The present qualitative study was conducted among the housewives of Akbar Abad city in Fars province of Iran. This study was conducted in 2020 using the method of conventional content analysis and using the purposeful sampling method in a semi-structured way. Informed consent was obtained from the participants. The inclusion criteria included married women who were housewives and had musculoskeletal pain in one or more areas of their body.

Findings: After analyzing the results, the predictors of pain inhibition and expression were extracted in three main categories, including personality and cognitive characteristics, cultural factors, and the individual's living conditions.

Conclusion: These results showed that the women who had more confident, skills, and expectation beliefs were more likely to do proper back behavior. In this regard, MSDs prevention interventions should address using key individually cognitive factors that consider the potential change strategies.

Keywords: Musculoskeletal Disorders, Housewives, Qualitative Study

Introduction

Musculoskeletal disorders (MSDs) are injuries that involves different parts of the body [1]. In this regard, back pain and neck pain have caused a high percentage of health problems [2]. Various individual, environmental and social factors are effective in the occurrence of skeletal disorders [3]. Studies have shown that women are at a higher risk than men in terms of musculoskeletal conditions [4,5]. Although housewives suffer from various skeletal problems, it is still not clear how they take care of their health and what attitude they have that harms or helps their health. For this reason, it is very important to consider what has a positive and negative effect on women's health. Despite the high prevalence of musculoskeletal disorders in housewives, few studies have addressed this issue [6,7].

Many individually factors including age and body mass as the cause of these disorders[8], but the behavioral factors that cause musculoskeletal disorders from the perspective of housewives have been less investigated. The availability of information on the individual characteristics of housewives and its risk factors can provide knowledge that will be the basis for providing preventive and therapeutic interventions. Many of the experiences, perceptions, opinions, and characteristics that form the basis of housekeeping experience cannot be investigated through quantitative studies. In addition, due to the influence of social, cultural factors, values and traditions in domestic activities, the necessity of qualitatively examining the experience and perspective of housewives special in different cultures seems necessary. Logically,

housewives have different personality traits that affect their housekeeping activities. In the experiences of skeletal disorders of housewives, especially in the case of women living in the city of Akbarabad with special traditions and culture, risky behaviors could be seen, so the research team in this study came to the conclusion to investigate the types of these risk factors through a qualitative study. Therefore, for better understanding, the present study was carried out under the title of explaining predictors related to MSDs in housewives living in Akbarabad city

Method and Materials

This study was approved by the ethics committee of Tarbiat Modares University with code of ethics (IR.MODARES.REC.1398.038). This qualitative study was conducted using the conventional content analysis method [9] with the aim of explaining the predictors of skeletal pain inhibition and expression in Akbarabad city for 13 months. In this regard, 24 semi-structured interviews were collected. A written consent form was completed by the participants. The inclusion criteria included housewives who were willing to participate in the study and were experienced skeletal pain in one or more areas of their body. The exclusion criteria included having another job in addition to housekeeping and suffering from severe chronic disease or depression in order to be able to participate in the interview. In order to preserve the principle of diversity according to qualitative studies, housewives with different age, education, economic status and number of children were interviewed [10]. The interviews were conducted over the phone or in person with an average time of 30-70 minutes. It was recorded using the device and typed word by word. To analyze the typed text or recorded audio units, they were read or heard several times and primary codes were extracted by breaking the text into semantic units. Coding was done using MAXQDA2018 software. The primary codes were categorized based on their similarities and their differences. The obtained categories were reclassified the process of data analysis through comparison

which was back-and-forth, and Member Check method was used to remove any ambiguities [11]. The obtained codes were reviewed and modified by Peer Check method through the team of researchers and External Check with the presence of 4 experienced professors in the field of qualitative studies and experts [12]. Credibility was established through long-term engagement in data collection (thirteen months) and member checking (by asking the participants to confirm the accuracy of the contents of the transcripts, and to revise them if necessary). The data analysis process was conducted by a research team who were experts in different fields of ergonomics, health promotion, human behavior and psychology through reviewing the extracted codes and related categories.

Findings

As a result of data analysis, predictive factors related to MSDs in housewives were extracted from three main categories, including personality and cognitive characteristics, cultural factors, and individually living conditions which included 8 subcategories.

1- Personality and cognitive characteristics included four subcategories, including adaptation to pain which meant that being believed that they should deal with their pain under any circumstances and make it appear normal because pain is a permanent phenomenon and has not cure. (I have to deal with my pain because there is no other way... p10-63), some participants believed that the reason for not paying attention to pain was the existence of various pains. One participant stated "I have a lot of pain that I have to endure, if I don't endure it, my health condition will get worse" (Participant number13 aged 49 years). Perfectionism in doing household activities in some participants, obsession and high sensitivity towards the cleanliness of the house, the completeness and excellence of all things in the house were considered the reason for the existence of skeletal disorders. In this regard, one participant said "I only accept my own work "(Participant number 22 aged 37years). Dedication of the participants due to the young age of the children, the busyness of

their husband and other family members were the reasons that they preferred to do the household chores alone and without asking others' help. In this regard, one participant stated "My husband is always at work and when came home is so tired" (Participant number 24 aged 41 years). Another belief that the participants were mentioned was about their fear experience related to skeletal pain which was associated with lack of therapeutic actions. In this regard one participant said "I do not go to the doctor for my back pain because of my fear due to surgery suggestion by the physician" Participant number 5 aged 56 years).

2- Cultural factors include two subclasses of normative beliefs such as the believes that housekeeping is just for women' duties and men do not have any responsibilities for housekeeping. (Participant number 23 aged 27 years). Another normative belief was

cultural taboos such as this that the daughter-in-law has to do all duties. In this regard, one participants said " I must do all the household chores alone, otherwise I will be labeled as unhelpful one (Participant number 3 aged 33 years).

3: The living conditions of the person like the distance of the husbands' work place from the house were another factors leading for MSDs. In this regard, one participant stated "I have all the responsibility of taking care of the children and managing the household because my husband did not have any time to help me (Participant number 5 aged 56 years). Another factor such as economic conditions was stated by the participants. One participant stated" I don't have the financial ability to buy proper shoes and it has led to my knee pain (Participant number 6 aged 65 years).

Table 1) Demographic characteristics of participants

Number of Participant	Age(years)	Duration of marriage	Number of children	Body Mass Index
1	44	25	3	30.5
2	40	20	2	19.2
3	33	18	3	28.1
4	44	24	4	25.0
5	41	22	4	23.4
6	65	50	3	27.5
7	44	22	3	34.0
8	42	22	3	36.5
9	24	3	0	22.3
10	63	50	7	25.3
11	57	48	4	27.0
12	42	13	3	30.4
13	49	36	3	29.7
14	45	20	1	30.1
15	57	37	3	23.4
16	48	28	3	27.0
17	41	22	1	25.5
18	42	23	3	26.2
19	46	29	3	23.6
20	35	13	2	28.7
21	32	13	3	27.5
22	37	23	3	36.1
23	27	5	1	24.8
24	41	20	2	25.2

Discussion

Adaptation to pain was a subset of housewives' personality traits. Women

believed that skeletal pain is incurable and unpreventable. On the other hand, women believed that their pain is not so important

that they want to do something to relieve it. That is why they preferred to hide it. Lack of attention to personal health in women can be due to their lack of awareness. Many of them also fought with their pain for years and considered the existence of pain as a normal element in their daily life. Studies have shown that women have naturally learned to live with pain and physical pain leads to permanent pain and disability in their lives [13]. Therefore, denying or running away from pain can have a negative effect on the experience of suffering from skeletal disorders and sometimes it has caused irreparable damage [14]. Housewives believed that all household activities should be done perfectly. This thinking led them to spend a lot of time cleaning the home environment, and this work wasted a lot of time and energy from them, and in the long run, they felt tired and had various pains. According to other studies, what is more important in the occurrence of these disorders are the underlying beliefs, cognitive and metacognitive factors, which often play a mediating role between thoughts and obsessive impulses and compulsive actions, and play an important role in the continuation of the disorder [15]. In this study, women believed that because they were housewives and had no other job, they had to do all the household chores alone. They believed that because their wife and children had other duties to do, they had the duty to do all the work alone despite all the pain. According to Zahed et al.'s study [16], the feeling of responsibility and commitment of family members towards each other is considered honorable and children were even willing to risk their health so that their elderly parents could receive better care. With the difference that the sense of self-sacrifice in the present study was stronger on the part of mothers, but this sense was more pronounced in children and compared to their elderly parents [17, 18]. Experiencing musculoskeletal pain in housewives caused them to fear and lead to pain intensification. Participants were afraid to go to the doctor because they thought they would need surgery. According to studies, people with musculoskeletal disorders may

avoid behaviors such as resting and visiting a doctor, which was almost consistent with the present qualitative results [19]. According to the study [20] and according to the fear-avoidance theory, the greater the feeling of fear in a person, the more catastrophic the pain is [21,22]. Culture plays an important role in doing housework [23]. In the present study, the participants considered it very important to show themselves strong, this led them to do housework in any situation, regardless of the pain they have. What was considered taboo for the participants in this qualitative study may be normal and non-taboo in other societies? In fact, one of the reasons that leads a housewife to consider such topics as forbidden was the cultural context. Another topic related to the taboo was related to the period of housewives. According to them, no one should notice their period. Housewives who experienced periods would hide it so that no one would notice. This led women to endure pain and a lot of pressure. On the other hand, the presence of shame in women led them to be cautious about this issue and not to cause harm to those around them. Women's husbands had to be away from the family environment for a long time due to their jobs, so many household responsibilities were the responsibility of the woman, in addition to the duties of the housewife, there was also the care of the children, which led to multiplying the responsibility of women. Negative experiences affect people's lives in various ways, during which conditions are created that lead to women not coping and ultimately lead to depression and skeletal pain. Other research showed that the death of loved ones, various diseases, and family problems lead to anxiety, and anxiety also leads to different reactions [24,25]. A study on women showed that unexpected life events and stress have a positive relationship with the occurrence of musculoskeletal disorders, and it shows that understanding women's mutual relationships is essential in managing their lives [26]. The findings showed that important life events such as financial problems and environmental facilities have a very important effect on musculoskeletal problems [27]. On the other hand, studies have

shown that there is a direct relationship between musculoskeletal problems and the pain caused by them and the inability to perform physical activities, which leads to reduced performance, weakness, reduced social well-being and individual independence [28]. The results of the studies were in line with the results of the present study. For example, housewives said that having economic problems makes them unable to buy proper shoes, and this was the reason for the pain in their feet and knees. In addition, some participants stated that if there were facilities such as a dishwasher in the kitchen, many of their pains would not exist. Among the people participating in this qualitative study, only one of the participants had facilities such as a dishwasher.

Conclusion

Women's experiences related to the predictors of inhibition and expression related to musculoskeletal disorders showed that they can control their pain to some extent, although they mentioned different reasons for suffering from their pain. They believed that the aggravation of their pain could lead to psychological symptoms and depression. Women continued to do activities that negatively affected their pain. It is important for people with musculoskeletal disorders to know what factors need to be controlled and how to do it so that they can recognize ways to live with pain and focus on personal strength and positive things instead of making pain a priority [14]. Environmental, cultural and interpersonal factors are an important issue that leads to the occurrence of many musculoskeletal problems in women. In order to improve the quality of life of housewives in all dimensions that can be intervened, logical and applicable solutions should be used. The strength of this study was the presence of participants with the greatest difference in order to extract more reliable data. The limitations of the study include the non-cooperation of some housewives, conducting the study on the housewives of one region, and due to the lack of easy access to the participants, some interviews were conducted by phone. Although telephone interviews cannot understand non-verbal

communication, the interviews of these participants were evaluated in an open, individual and time frame of their choice and very rich in details. Suggestions for the implementation of future studies also include the creation of organizations to directly monitor the work of housewives and the creation of policy programs with the aim of financial and social support for housewives.

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Authors' Contribution

SN was the main researcher, SST was supervisor of the study, RC and HM was advisor of the study.

Conflicts of Interest

There is no conflicts' of interest for this study

Ethical Permissions

This study was approved by the ethics committee of Tarbiat Modares University with code of ethics (IR.MODARES.REC.1398.038).

Findings

None

References

1. Chung YC, Hung CT, Li SF, Lee HM, Wang SG, Chang SC, et al. Risk of musculoskeletal disorder among Taiwanese nurses cohort: a nationwide population-based study. *BMC Musculoskele disord*. 2013;14: doi.org/10.1186/1471-2474-14-144
2. Mondal J. A Review on Mechanical & Physical Hazards at Domestic Kitchen. *Int. J. Occup. Saf.*. 2012;2(1):7-10.
3. Norouzi s, Tavafian1 SS, Cousins R , Mokarami H. Understanding risk factors for musculoskeletal disorders in Iranian housewives: Development of a comprehensive health. *BMC Public Health* 2023; 23:617. doi.org/10.1186/s12889-023-15518-w
4. Ahlgren C, Malmgren Olsson E-B, Brulin C. Gender analysis of musculoskeletal disorders and emotional exhaustion: interactive effects from physical and psychosocial work exposures and engagement in domestic work. *Ergonomics*. 2012;55(2):212-28.
5. Brauer RL. *Safety and health for engineers*: John Wiley & Sons; 2022.
6. Fazli B, Ansari H, Noorani M, Jafari SM, Sharifpoor Z, Ansari S. The prevalence of musculoskeletal disorders and its predictors among Iranians' Housewives. *Int J Epidemiol Res*. 2016;3:53-62.
7. Aghilinejad M, Seyedmehdi SM, Golabadi M, Dehri SG. Prevalence of musculoskeletal disorders and its related factors in housekeeping women. *Medical Journal Of Tabriz University Of Medical Sciences*. 2012;34(2):86-9.

8. Bernal D, Campos-Serna J, Tobias A, Vargas-Prada S, Benavides FG, Serra C. Work-related psychosocial risk factors and musculoskeletal disorders in hospital nurses and nursing aides: a systematic review and meta-analysis. *Int. J. Nurs. Stud.* 2015;52(2):635-48.
9. Mehrdad N, Oskouie F, Seyed Fatemi N, Rezaei M. Qualitative content analysis. Tehran, Iran: Boshra Publication. 2013.
10. Davies D, Dodd J. Qualitative research and the question of rigor. *Qual. Health Res.* 2002;12 (2):279-89.
11. Wildemuth BM. Applications of social research methods to questions in information and library science: ABC-CLIO; 2016.
12. Lietz CA, Langer CL, Furman R. Establishing trustworthiness in qualitative research in social work: Implications from a study regarding spirituality. *Qual. Soc. Work.* 2006;5(4):441-58.
13. Gullacksen A-C, Lidbeck J. The life adjustment process in chronic pain: psychosocial assessment and clinical implications. *Pain Res. Manag.* 2004;9(3):145-53.
14. Svensson M, Larsson I, Aili K. Women's experiences of the journey to chronic widespread pain: a qualitative study. *BMC Musculoskelet Disord* **21**, 417 (2020). <https://doi.org/10.1186/s12891-020-03442-8>
15. Starcevic V, Berle D. Cognitive specificity of anxiety disorders: a review of selected key constructs. *Depression and anxiety.* 2006;23(2):51-61.
16. Zahed, S., Emami, M., Bazargan-Hejazi, S. et al. What motivates informal caregivers of people with dementia (PWD): a qualitative study. *BMC Palliat Care* **18**, 105 (2019). <https://doi.org/10.1186/s12904-019-0491-9>
17. Pimentel EE. Gender ideology, household behavior, and backlash in urban China. *J. Fam. Issues*". 2006;27(3):341-65.
18. Kalra S, Bhatnagar B. Prevalence of musculoskeletal disorder among housewives. *International Research Journal of Engineering and Technology (IRJET)* e-ISSN. 2017:2395-0056.
19. Elfving B, Andersson T, Grooten WJ. Low levels of physical activity in back pain patients are associated with high levels of fear-avoidance beliefs and pain catastrophizing. *Physiother. Res. Int.* 2007;12(1):14-24.
20. simons LE, Kaczynski KJ. The fear avoidance model of chronic pain: Examination for pediatric application. *The Journal of Pain.* 2012;13(9):827-35.
21. Lazaridou A, Martel MO, Cornelius M, Franceschelli O, Campbell C, Smith M, et al. The association between daily physical activity and pain among patients with knee osteoarthritis: the moderating role of pain catastrophizing. *Pain Medicine* 2019;20(5):916-24.
22. Vlaeyen JW, Linton SJ. Fear-avoidance and its consequences in chronic musculoskeletal pain: a state of the art. *Pain* 2000;85(3):317-32.
23. Klocokova J. Symbolic functions and social meanings of household work. *Sociología (Sociology)* 2004;5(36):455-72.
24. Ellegaard H, Pedersen BD. Stress is dominant in patients with depression and chronic low back pain. A qualitative study of psychotherapeutic interventions for patients with non-specific low back pain of 3–12 months' duration. *BMC Musculoskelet Disord* . 2012 Sep 6:13:166. doi: 10.1186/1471-2474-13-166.
25. Videbech P. Depression, stress and hjernefunktion: Moderne depressionsoptattelse.(Depression, stress and brain function: Modern perceptions of depression). *Månedsskrift for Praktisk Laegegerning.* 2005;83(11):1321-31.
26. Smythe D. A few laced genes: women's standpoint in the feminist ancestry of Dorothy E. Smith. *History of the human sciences.* 2009;22(2):22-57.
27. Yip Yb. A study of work stress, patient handling activities and the risk of low back pain among nurses in Hong Kong. *J. Adv. Nurs.* 2001;36(6):794-804.
28. Briggs AM, Cross MJ, Hoy DG, Sánchez-Riera L, Blyth FM, Woolf AD, et al. Musculoskeletal health conditions represent a global threat to healthy aging: a report for the 2015 World Health Organization world report on ageing and health. *The Gerontologist* 2016;56(suppl_2):S243-S55.