The Relationship Between Lifestyle with Chronic Pain and Pain Acceptance in Elderly with Stroke

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Received 2018 August 29; Revised 2018 October 19; Accepted 2018 October 24.

Abstract

Background: Changing lifestyle can be effective in preventing pain and facilitates the process of chronic pain and its side effects. Pain acceptance is an important and valuable concept related to the manner of a person, reaction, and compatibility with chronic pain.

Objectives: The current study was conducted to determine lifestyle with chronic pain and pain acceptance in patients with stroke in Ilam city in 2018.

Methods: This was a descriptive cross-sectional study conducted in 2018 on 200 patients who were hospitalized at Shaheed Mostafa Hospital of Ilam city due to stroke. According to the goals of the study, demographic specifications, the questionnaire of lifestyle with chronic pain, and the questionnaire of chronic pain acceptance were used. The obtained data of this study were analyzed using descriptive statistics (mean, standard deviation, and the table of frequency distribution) and inferential statistical tests (independent t and analysis of variance (ANOVA)).

Results: According to the findings, the mean (SD) of pain acceptance was 16.22 (1.99) and that of lifestyle with chronic pain was 21.83 (3.91). Also, the maximum score in lifestyle with chronic pain and chronic pain acceptance was respectively 32 and 22. Also, there was no significant relationship between lifestyle and chronic pain and pain acceptance in elderly with stroke (P = 0.22).

Conclusions: According to the findings, mean (SD) scores of lifestyle with chronic pain and the rate of pain acceptance were not desired, therefore, nurses need to make improvements through nursing interventions.

Keywords: Chronic Pain, Stroke, Pain Acceptance

1. Background

Stroke is an important disease, which has many negative effects on health (1). Stroke is a sudden and local neurological defect, arising from ischemic lesions in the brain, and leads to change in the function of the brain that changes the performance of a part of the body and physical perception of body position (2). This disease is common in elderly and due to the growing elderly population, this group of patients need receive greater attention (3). Stroke is followed by different complications, such as reduced physical activity (4), reduced life quality (5), and increasing pain (6). Pain is one of the most important problems in elderly and patients with stroke, which causes a lot of problems for this group of people (7-9).

Pain is one of the pivotal issues in elderly as well as stroke patients (10-12). Patients with stroke experience different types of pain, including headaches, shoulder pain, and central post-stroke pins (13). Hemiplegic pain is one of the types of pain in patients with stroke, with an estimated prevalence of 16% to 84% (7,14,15). Also, in the study by Mazzocato et al. 69% of patients had pain (16), and in a review article by de Vries et al. it was shown that between 87.3% and 87.8% of patients experienced pain, indicating the importance of pain in these patients (17).

Pain acceptance is a crucial and valuable concept related to the manner of a person, reaction and compatibility with chronic pain (18). The findings of conducted studies have shown that pain acceptance is associated with better performance, less discomfort, and more pain treatment (18-21). In fact, instead of ineffective measures to reduce pain, the person concentrates on valuable activities and his appropriate personal goals so he is expected to have a better physical and mental performance (19,22,23), which indicates the necessity of pain acceptance (23).

Moreover, lifestyle can affect chronic pain. In fact,
changing lifestyle is effective on preventing pain and facilitates the process of chronic pain and its side effects (24). For example, effective factors on lifestyle, such as physical activity, sleeping, tobaccos, nutrition etc. affect pain management (24). Lifestyle with chronic pain involves a set of methods, used by a person in his daily life, allowing active compatibility with pain and elimination of problems (25).

The current study was conducted to determine lifestyle with chronic pain and pain acceptance in patients with stroke in Ilam city.

2. Methods

This was a cross-sectional study, conducted in 2018 on 200 patients, who had been hospitalized at Shaheed Mostafa Hospital of Ilam city due to stroke. According to previous studies, 200 stroke patients, older than 65, having the experience of being hospitalized and complete consciousness, were included in the study through simple random sampling.

The researcher prepared a list of stroke patients based on diagnosis of the physician in the clinical records of patients, and if six months had passed since their stroke and discharge from the hospital, they were called and asked to complete questionnaires through interviews. Thus, patients referred to the hospital or doctor’s office and were enrolled in the study. In case of illnesses other than stroke, the cases were excluded from the study. After explaining the goals of study for the patients, they were informed that participation in the study was optional, had no cost, and they could leave the study at any time and the principles of confidentiality was emphasized. It is worth noting that the study was started after the confirmation of moral committee in research and obtaining permission of research from concerned authorities.

According to the goals of the study, the intended tools, including the demographic specifications (such as age, gender, income, education, and marital status), the questionnaire of living with chronic pain and the questionnaire of chronic pain acceptance were used (25-28). The questionnaire of lifestyle with chronic pain in elderly has seven questions in two areas of pain (two questions) and the effort for reducing it (five questions). The statements of the above-mentioned tools are designed in five-degree Likert scale as always (four scores), often (three scores), sometimes (two scores), rarely (one score) and never (zero score) and the obtained score is within 0 to 28 and obtaining a higher score indicates the appropriateness of chronic pain acceptance in elderly. This questionnaire has face, content, and construct validity and its reliability has been determined through internal consistency of $a = 0.83$ and stability through retesting using intra-clustering correlation coefficient as $0.85$ (27, 28).

The obtained data of this study was analyzed using SPSS16 statistical software, descriptive statistics (mean, standard deviation and the table of frequency distribution), and inferential tests (independent $t$ and ANOVA).

3. Results

Table 1 shows mean (SD) of lifestyle and chronic pain acceptance based on patients’ demographic specifications. The mean ± SD age of the patients was 78.93 (9.75). According to the findings of this table, there was a significant statistical relationship between lifestyle and chronic pain, gender, education ($P = 0.000$), and the average score of female patients as well as the education of higher than diploma. Moreover, there was no significant statistical relationship between pain acceptance and none of the demographic specifications ($P > 0.05$). Also, no significant relationship was found between lifestyle and chronic pain and pain acceptance in elderly with stroke ($P = 0.22$).

Table 2 indicates the status of frequency of lifestyle with chronic pain. According to the findings of this table, 69% of patients stated that pain is associated with reduced physical, spiritual, and social abilities and 55% of these patients said that they did not enjoy their life because of pain.

Table 3 shows the frequency distribution of chronic pain acceptance. According to the findings, a few patients were in the field of pain so that 9.5% of patients stated that they were aware of the type of disease and pain and only 1.5% of patients were able to control their pain.

According to the findings of Table 4, the mean (SD) of pain acceptance was 16.22 (1.99) and lifestyle with chronic pain was 21.83 (3.91). Also, the maximum score in lifestyle with chronic pain and chronic pain acceptance was respectively 32 and 22.

4. Discussion

According to the findings of the current study, the mean of chronic pain acceptance and lifestyle with chronic pain in the current study was higher than the mean of chronic pain acceptance and lifestyle with chronic pain in...
Table 1. Lifestyle with Chronic Pain Acceptance Based on Patients’ Demographic Specifications

| Demographic Variables | No. (%) | Life Style Pain | Chronic Pain Acceptance |
|-----------------------|---------|-----------------|-------------------------|
| **Gender**            |         |                 |                         |
| Man                   | 105 (52.5) | 20.82 ± 3.90 | 16.35 ± 2.03 |
| Female                | 95 (47.5)  | 22.93 ± 3.63 | 16.30 ± 2.01 |
| P value               | -       | 0.000          | 0.59                    |
| **Education level**   |         |                 |                         |
| Diploma and under the diploma | 142 (71) | 20.76 ± 3.73 | 16.36 ± 1.94 |
| Top diploma          | 58 (29)  | 24.44 ± 3.02 | 15.87 ± 2.00 |
| P value               | -       | 0.000          | 0.11                    |
| **Income**            |         |                 |                         |
| Weak                  | 135 (67.5) | 21.77 ± 4.24 | 16.32 ± 2.10 |
| Medium                | 58 (29)  | 22.20 ± 3.01 | 15.96 ± 1.82 |
| Good                  | 7 (3.5)   | 19.85 ± 3.53 | 16.42 ± 0.78 |
| P value               | -       | 0.50           | 0.31                    |
| **Marital status**    |         |                 |                         |
| Has spouse           | 98 (49)  | 21.31 ± 3.81 | 16.24 ± 2.00 |
| No spouse            | 102 (51) | 22.32 ± 3.95 | 16.20 ± 2.01 |
| P value               | -       | 0.06           | 0.89                    |

* Values are expressed as mean ± SD.

Table 2. Frequency Distribution of Questions of Lifestyle with Chronic Pain Questionnaire in the Study Patients

| Due to the Pain, I Have the Following Problems: | Never | Rarely | Sometimes | Rarely | Often |
|-------------------------------------------------|-------|--------|-----------|--------|-------|
| 1. My abilities (physical, mental, social and spiritual) are decreased. | 138 (69) | 31 (15.5) | 10 (5) | 11 (5.5) | 10 (5) |
| 2. I have become inactive. | 108 (54) | 35 (17.5) | 25 (12.5) | 23 (11.5) | 9 (4.5) |
| 3. I depend on different things (lift, chair, car, etc.) to do my personal works. | 81 (40.5) | 62 (31) | 38 (19) | 13 (6.5) | 6 (3) |
| 4. I depend on others for doing my works (personal hygiene, leaving home, etc.). | 45 (22.5) | 40 (20) | 30 (5) | 74 (37) | 11 (5.5) |
| 5. To reduce my pain, I have to take multiple medications. | 79 (39.5) | 61 (30.5) | 31 (15.5) | 16 (8) | 13 (6.5) |
| 6. I have referred to various treatment centers (hospitals, offices, etc.). | 48 (24) | 66 (33) | 59 (29.5) | 17 (8.5) | 10 (5) |
| 7. My family and my relatives are worried. | 45 (22.5) | 30 (15) | 71 (35.5) | 42 (21) | 12 (6) |
| 8. I wish for death. | 2 (1) | 3 (1.5) | 24 (12) | 71 (36.5) | 98 (49) |
| 9. I do not listen to others' advice. | 85 (42.5) | 44 (22) | 29 (14.5) | 29 (14.5) | 13 (6.5) |
| 10. I do not enjoy my life. | 110 (55) | 64 (32) | 18 (9) | 7 (3.5) | 1 (0.5) |
| 11. I cannot help other family members. | 97 (48.5) | 53 (26.5) | 39 (19.5) | 10 (5) | 1 (0.5) |
| 12. The person who takes care of me has got problems (losing the opportunity of marriage, job, etc.). | 2 (1) | 18 (9) | 59 (29.5) | 74 (37) | 47 (23.5) |
| 13. I feel lonely. | 91 (45.5) | 61 (30.5) | 39 (19.5) | 8 (4) | 1 (0.5) |
| 14. I'm having problems with my job (pre-retirement, job loss, etc.). | 7 (3.5) | 11 (5.5) | 48 (24) | 84 (42) | 50 (25) |
| 15. I'm having financial problems. | 96 (48) | 44 (22) | 49 (24.5) | 10 (5) | 1 (0.5) |

* Values are expressed as No. (%).

the study of Shirazi et al. (25) on elderly group. This difference may be because of differences in the method of sampling and features of study population so that the elderly with stroke were investigated in this study through simple random sampling while in the study of Shirazi et al. (25), the elderly with chronic pain, referring to health centers...
were selected through cluster sampling.

According to the findings, there was no significant relationship between lifestyle and chronic pain and the status of pain acceptance, which is not consistent with the results of Shirazi et al. (25). The findings also showed that most patients had become inactive because of pain, which is consistent with the results of the study by Lazaridou et al. on patients with knee osteoarthritis, in which there was a significant statistical relationship between physical activity and pain (29). Also, in the study of Parker et al. on patients with chronic pain, the findings showed that pain is effective on the rate of physical activity (30), which is consistent with the results of the current study.

The findings of the current study showed that patients had become dependent in their personal activities because of pain. The findings of a study by Yiengprugsawan and Stepto on an elderly group showed that there was a relationship between activities of daily living and pain (31). Also, in the study of Yiengprugsawan et al. aimed at determining the relationship between daily living and lower back pain, the findings showed that pain affects the rate of daily living (32). According to their findings, most patients stated pain as a reason for referring to hospitals, which is consistent with the results of the study by Kiani and Shahsavani, who showed that patients referred to hospitals in case of pain (33).

Based on the results of this study, there was a significant relationship between the rate of pain and life pleasure and elderly patients mentioned pain as a barrier for enjoying life. In the study of Karadag Arli et al. on an elderly group, they showed that there is a significant relationship between pain and life satisfaction and the elderly with pain were more dissatisfied with life (34). Also, in the study of Budh and Osteraker on groups with spinal cord injury (SCI), it was shown that the rate of life satisfaction was more in SCI patients with lower back pain than those with upper back pain (35), which is consistent with the results of the current study, based on better life pleasure for patients with lower back pain.

### 4.1. Conclusions

According to the findings, Mean (SD) of scores of lifestyle with chronic pain and the rate of pain acceptance were not desired, therefore, the nurses need to make improvements through nursing interventions.

### Acknowledgments

The authors are extremely grateful to the patients participating in this research. The Student Research Committee of Kermanshah University of Medical Sciences is also grateful for the support of this research (project code: 3007125).

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