Impact of Health Literacy on Self-Efficacy Management and Quality of Life among Patients Leaving Against Medical Advice

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ABSTRACT

Background: The impact of health literacy on self-efficacy management and quality of life among patients leaving against medical advice is essential to determine so that patients can decide on how they manage their health.

Aim: This study examined the impact of health literacy (HL) to quality of life (QOL) and self-efficacy (SE).

Methods: A cross-sectional survey was employed with 101 patients who left the hospital against healthcare professionals' medical advice. Snowball sampling was employed since potential participants are difficult to find. The researchers used Google Forms for easy distribution of the questionnaire. Data gathering was conducted between May and June 2022.

Results: The mean (SD) value of health literacy was moderate (97.2 ±13.51) with a range of 47 to 188, moderate self-efficacy (21.0 ±3.68) with a range of 10 to 40, and quality of life was low (87.4 ±6.61) with a range of 16 to 188. The length of hospital stay differed significantly from the QOL score. It was found that there were significant relationships among HL, QOL, and SE.

Conclusion: The patients who opted for LAMA had moderate health literacy, self-efficacy, and low quality of life. The length of hospital stay was found to differ significantly with QOL. Moreover, it was found that there was a significant impact of HL on QOL and SE.

Keywords: Self-efficacy, Quality of life, Patients, Leaving against medical advice, Saudi Arabia

INTRODUCTION

Disruption of care due to leaving against medical advice (LAMA) means patients are more likely to experience health problems and require readmissions[1] and this accounts for 1-3% of emergency room visits[2]. In fact, LAMA is one of the main causes of readmission and can have a negative impact on clinical outcomes, healthcare resource usage and healthcare costs[3], as well as having medico-legal and socioeconomic repercussions[4]. The attempts to re-engineer the discharge process to promote a safe transition include advances in practitioner's communication, patient education, and information technology systems, inclusion of community-based providers, and preparedness for swift follow-up[5]. Attending healthcare professionals can encourage authenticity of choice by evaluating patients' self-efficacy, health literacy and capacity to complete tasks.

Health literacy is the capacity of a person to access, process, and comprehend the basic health information and services they need to make informed health decisions[6]. Indeed, health literacy along with self-efficacy, social support, and health-related quality of life are just a few examples of the variables that have been shown to influence survival[7]. According to estimates, people with poor individual health literacy are 1.5 to 3 times more likely to experience bad health effects[8] as a result of inadequate consumer education and unhealthy lifestyle decisions[9]. Therefore, addressing health literacy could influence the capacity of patients to make choices and act to maintain their medical and health care needs[10].

The belief in one's capability and aptitude to execute a task or overcome obstacles in life is known as self-efficacy[11]. Moreover, self-efficacy is the degree to which a person has confidence in their ability to carry out tasks and accomplish goals[12]. It is essential for successful conduct and acts as a link between knowledge and deeds[13]. A high self-efficacy individual is more inclined to explore for possibilities to increase their awareness about health issues and feel powerful and empowered by doing so[14]. According to research, high self-efficacy is linked to treatment adherence, health-promoting behaviours and improvements

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in quality of life (QOL)[15]. The World Health Organization defines quality of life (QOL) as an individual's understanding of their place in the cultural and value system in which they live and how that understanding relates to their expectations and targets, guidelines and affairs[16]. To provide care effectively, developing patients' knowledge and self-care abilities and enhancing their quality of life is important[17]. Therefore, being aware of planning and delivering systematic treatment can be improved the understanding of the patients' quality of life that is appropriate for each patient's situation[18].

It is important that the health literacy of patients leaving against medical advice be identified to ensure that patients can decide how to manage their health. It is assumed that improving health literacy can also improve their quality of life, as they are given information to better comprehend their disease and feel more capable of managing their own care as a result. Therefore, this study examined the impact of health literacy (HL) to quality of life (QOL) and self-efficacy (SE).

METHODS

Design: A cross-sectional design was employed in this study.

Settings/Participants: The participants of the study were 101 patients who had left hospital against the medical advice of healthcare professionals. Snowball sampling was employed, since potential participants are difficult to find. The inclusion criteria included those who (a) had left the hospital against medical advice (regardless of the department) in 2020–2022, (b) were in good disposition since the time they left the hospital, (c) were willing to participate and (d) understood and spoke English. Patients who had absconded were excluded.

Data Collection: The researchers made use of Google Forms for easy distribution of the questionnaire. The instruments included an informed consent form explaining the purpose of the study, participant rights, extent of participation, and risks and benefits. Individual responses to the survey were required from the participants whenever they had time. Although the respondents' explicit consent was not requested, it was assumed that they had given it by filling out the questionnaire. Data gathering was conducted between May and June 2022.

Questionnaire: The researchers utilized three questionnaires to gather the data. The first questionnaire was the health literacy questionnaire, which was adapted from Huang et al[19]. The cornerstone for creating the European Health Literacy Survey Questionnaire was the suggested integrated paradigm of health literacy (HLS-EU-Q). There are 47 components make up the HLS-EU-Q that evaluate 12 subdomains of health literacy that are made up of three different health settings (healthcare, disease prevention and health promotion) and four information-processing skills that people possess (accessing, understanding, appraising and applying)[19]. The scoring categories are as follows: (1) very difficult, (2) difficult, (3) easy and (4) very easy.

The second questionnaire was the Flanagan Quality of Life Scale (QOLS)[20] using Andrews and Crandall[21] work, with 16 items. Because it allowed for a wider range of emotive reactions to QOL questions, Andrews and Crandall hypothesized that a 7-point scale with the adjectives "delighted" as the highest (7) and "terrible" as the lowest (1) as its anchors was more sensitive and less negatively skewed than a 5-point satisfaction scale for quality of life assessment. Finally, the general self-efficacy scale of Schwarzer and Jerusalem[22] was used, with 10 items. It has four scoring categories: (1) not at all true, (2) hardly true, (3) moderately true and (4) exactly true. The total score was calculated by finding the sum of all items. The overall score on the GSE ranges from 10 to 40, with a higher score indicating greater self-efficacy.

The three questionnaires were tested for validity and reliability. Four experts with doctoral degrees examined the questionnaire. The tool was evaluated as highly valid, as evidenced by the overall content validity indexes of 0.81 for relevance and 0.84 for clarity. The instruments were pilot tested in the local context with 12 participants, resulting in Cronbach alphas of 0.80 for health literacy, 0.83 for quality of life and 0.86 for self-efficacy.

Table 1: Personal characteristics and their associations with health literacy, self-efficacy, and quality of life (n=101)

CHARACTERISTICS	MEAN (SD) / n (%)	Health Literacy Mean (SD)	Self-efficacy Mean (SD)	Quality of Life Mean (SD)
Age				
25 years old and below	30 (29.7)	99.6 (13.47)	21.1 (3.90)	89.5 (6.31)
26-35 years old	41 (40.6)	94.4 (11.94)	20.9 (3.42)	86.1 (6.50)
36 years old and above	30 (29.7	98.5 (15.23)	21.1 (3.92)	87.2 (6.75)
F-value		*0.225^{ns}*	*0.944^{ns}*	*0.102^{ns}*
Sex				
Male	52 (51.5)	95.8 (14.29)	20.9 (3.71)	86.8 (6.66)
Female	49 (48.5)	98.6 (12.61)	21.1 (3.69)	88.1 (6.55)
t-value		*0.303^{ns}*	*0.766^{ns}*	*0.335^{ns}*
Length of Hospital Stay				
30min. & less	26 (25.7)	95.6 (12.13)	21.1 (3.82)	87.5 (6.56)
30min to 1hr	47 (46.5)	99.2 (14.12)	21.0 (3.55)	88.9 (7.15)
1hr & up	28 (27.7)	95.1 (13.63)	21.0 (3.91)	84.9 (4.90)
F-value		*0.353^{ns}*	*0.989^{ns}*	*0.036**
Insurance Status				
Not Insured	54 (53.5)	98.6 (12.94)	21.6 (3.64)	88.1 (7.36)
Insured	47 (46.5)	95.5 (14.08)	20.4 (3.67)	86.6 (5.58)
t-value		*0.255^{ns}*	*0.112^{ns}*	*0.241^{ns}*
OVERALL MEAN (SD)		97.2 (13.51)	21.0 (3.68)	87.4 (6.61)

ns – not significant * - significant at 5% ** - significant at 1%

Ethical Considerations: This study obtained ethical approval from the Ethical Review Board of the Ministry of Health, Hail region, Saudi Arabia (IRB-2021-32).

Data Analysis: SPSS version 26 were employed to analyze the data. Frequencies and percentages were used to characterize the demographic data. The means and standard deviations were used to describe the total HL, SE and QOL values. The differences in the demographic parameters of HL, SE and QOL were examined using an independent sample t-test and an ANOVA test. The correlations between HL, SE and QOL were examined using Pearson's correlations.

RESULTS

A sample of 101 patients who left hospital against medical advice were included in this study to examine the relationship among HL, QOL and SE. Other variables also included were socio-demographic characteristics, such as age, sex, length of hospital stay and insurance status.

The patients were mostly aged 26 to 35 years old (41%), males (51%), stayed for 30 minutes to one hour in the hospital (46%), and were not insured (53%). The mean (SD) values of health literacy was moderate (97.2 ±13.51) from a range of 47 to 188, moderate self-efficacy (21.0 ±3.68) from a range of 10 to 40, and quality of life was low (87.4 ±6.61) from a range of 16 to 188 (Table 1).
Among all the variables tested, only the length of hospital stay was found to have significant difference with quality of life scores.

Table 2 presents the correlations among health literacy, self-efficacy and quality of life. All three variables had significant bivariate associations with each other.

Table 2: Correlation among health literacy, self-efficacy, and quality of life (n=101)

	Health Literacy	Self-Efficacy	Quality of Life
Health Literacy	1.000	0.207*	0.389***
Self-Efficacy		1.000	0.234*
Quality of Life			1.000

* - significant at 5% ** - significant at 1%
*** - significant at <1%

DISCUSSION

This current study demonstrated that HL levels were moderate for LAMA patients, which means they have the ability to access, process and making wise health decisions which are fundamentals to health information and services. This finding is comparable to a Saudi Arabian study finding that 84.4% of patients had adequate health literacy[23]. However, it is inconsistent with other estimates from previous literature[24] stating that approximately half of the Saudi population lacks basic health literacy. SE was found to be moderate, which means that LAMA patients are potentially able to complete and or overcome obstacles in life. This result aligns with a similar study conducted with Saudi Arabian patients[25]. Further, QOL was found to be low, which is in line with similar findings by Alshayban and Joseph[26]. Given these findings, healthcare practitioners should play a role in measuring HL and empowering physical health behaviours in LAMA patients by providing health-promoting programmes to improve QOL.

In this study, it was found that HL, SE and QOL were not significantly related to age, sex, and legth of stay or insurance status. This finding challenges other literature in which gender, age, education, employment, culture, language and ethnicity have been found to influence HL, SE and QOL[24], and a link between HL and gender, age and educational attainment was found when people made decisions about their health and healthcare services. In a study by Almutary and Tayyib[25], age and gender did not significantly affect SE score, as demonstrated, however some research have discovered that older age is related with a lower score because of biopsychosocial problems and physiological changes[26]. Alshayban and Joseph[27] found gender, area of residence and household status to be independently related to patient QOL. While no differences in HL, SE or QOL were observed according to demographic factors, this study can aid the development of effective intervention programmes to raise LAMA patient's standard of living in the Saudi populace.

In a further analysis, HL, SE and QOL were found to have significant bivariate associations with each other, which is in agreement with earlier findings[14]. Studies have also emphasized that patients with high levels of SE reported their QOL as higher[28]. This indicates that patients with high HL are more likely to have SE in using correct information from healthcare workers, and SE status and QOL of patients can be improved in a variety of ways by developing strategies and programmes. As a result, patients are more likely to modify and improve their health-promoting behaviours and lifestyle choices, thereby improving their QOL. Such a result of the study indicate that LAMA patients are prepared to deal with HL. It is suggested that healthcare workers develop SE programmes to improve the SE of patients with LAMA. In this way, patients will be able to gain practical skills and competence, thereby improving their QOL.

Study Limitation

A limitation of this study is the small number of participants, which means that generalization of the results may not be possible. Moreover, the timing of the study (declining numbers of COVID-19) may be a variable that affected the self-reports of participants. Thus, a need to conduct a follow-up study considering other variables (e.g. reasons for LAMA) is recommended.

CONCLUSION

The patients who opted for LAMA had moderate health literacy, self-efficacy and quality of life. Length of hospital stay was found to have a significant relationship with quality of life. Moreover, it was found that there was significant relationship among HL, QOL, and SE. In clinical practice, healthcare practitioners must make significant efforts to provide LAMA patients with health education and information to improve their QOL. Hospital institutions could also provide programmes that enhance both the HL and SE of patients.

What is known: LAMA is one of the main causes of readmission and can have a negative impact on clinical outcomes.

High self-efficacy is linked to treatment adherence, health-promoting behaviours and improvements in quality of life.

What this study adds: The patients who opted for LAMA had moderate health literacy, self-efficacy and low quality of life.

Health literacy has a significant impact to QOL, and SE.

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Authors' Contributions: EAP and RPM were responsible for the study conception and design, while SCV and RBS were responsible for data acquisition. EAP, RPM, SCV, and RBS analyzed and interpreted the data. All of the authors drafted the manuscript and critically revised it. Further, all authors read and gave final approval of the version submitted in this journal.

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