Predictors of the Quality of Life of Patients with Non-Alcoholic Fatty Liver Disease in Henan, China

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Abstract

Non-alcoholic fatty liver disease (NAFLD) is a major public health issue, impacting millions and leading to complications like liver cirrhosis and cardiovascular disease. As NAFLD prevalence increases, understanding the factors that affect the quality of life (QoL) of those affected is vital. While research has identified the roles of social support, health literacy, and coping strategies in influencing QoL, significant gaps remain in understanding their interactions and relative contributions. Addressing these gaps is essential for developing effective interventions to improve the well-being of individuals with NAFLD. The research adopts a descriptive correlational design to explore the relationship between the identified predictors and the quality of life of NAFLD patients. Correlation analysis was employed to examine the relationships between health literacy, family support, coping strategies, and quality of life across all domains. The analysis found a significant negative correlation between quality of life and health literacy ($\tau = -0.2036$, **p < 0.01), indicating that higher health literacy is associated with better quality of life, while family support showed a weak, non-significant correlation ($\tau = -0.0102$). Additionally, a significant negative correlation between health literacy and family support ($\tau = -0.1792$, **p < 0.01) suggests that increased health literacy may be linked to lower perceptions of family support. The study emphasizes the need for tailored education and interventions, as well as family engagement in treatment plans, to improve patient outcomes and quality of life in managing NAFLD.

Keywords: Non-alcoholic Fatty Liver Disease (NAFLD); Quality of Life; Family social support; Health Literacy; Coping strategies; Predictor

1. Introduction

Non-alcoholic fatty Liver Disease (NAFLD) has emerged as a significant public health concern, affecting millions worldwide and leading to various complications, including liver cirrhosis and cardiovascular disease (Riazi et al., 2022). As the prevalence of NAFLD continues to rise, understanding the factors that influence the quality of life (QoL) of affected individuals becomes increasingly important. Recent studies indicate that clinical parameters do not solely determine NAFLD patients' QoL but are suggestively favored by psychological and social factors such as support system, literacy, and coping strategy (Funuyet-Salas et al., 2020; Ruiz-Rodríguez et al., 2022; Shea et al., 2022). Health literacy enables patients to understand and manage their condition effectively (Funuyet-Salas et al., 2021). Moreover, a resilient family support system can provide the emotional and practical assistance necessary to navigate the complexities of living with NAFLD (Funuyet-Salas et al., 2020). Conversely, adaptive coping mechanisms, which promote proactive health management, are associated with improved QoL (Funuyet-Salas et al., 2020). Given these insights,

enhancing social support, improving health literacy, and promoting adaptive coping strategies are essential components for the effective management of NAFLD.

The global prevalence of NAFLD and NASH is 55.5% and 37.3%, respectively, in patients with type 2 diabetes mellitus, highlighting the need for increased awareness among stakeholders (Younossi et al., 2019). Literacy, particularly health literacy, plays a significant role in the quality of life for patients with Non-Alcoholic Fatty Liver Disease (NAFLD), especially given its high prevalence among patients with type 2 diabetes mellitus (Nguyen et al., 2021). Patients with higher levels of health literacy are better equipped to understand their condition, the associated risks, and the necessary lifestyle changes required to manage NAFLD effectively (Valery et al., 2022). This understanding is crucial given the complex nature of managing both NAFLD and type 2 diabetes, which often requires adherence to specific dietary guidelines, medication regimens, and regular monitoring of health indicators. This can lead to more personalized care and better adherence to treatment plans, ultimately improving health outcomes and quality of life (Nguyen et al., 2021). For instance, patients who understand the implications of NAFLD and NASH (Non-Alcoholic Steatohepatitis) are more likely to follow through with necessary lifestyle modifications and medical advice. Hence, patients with lower literacy levels may struggle to comprehend complex medical information, leading to poor disease management and a decreased quality of life (Valery et al., 2022). This highlights the importance of healthcare providers using clear communication and providing accessible resources to patients with varying literacy levels.

In China, The reported prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) at nearly 30% in China has significant public health implications. This high rate indicates that a substantial portion of the population is at risk for liver-related complications, which can lead to increased healthcare demands and associated costs (wu et al., 2020). This emphasizes the need for public health initiatives that promote awareness, prevention, and lifestyle modifications, particularly in economically successful areas. Furthermore, Non-Alcoholic Fatty Liver Disease (NAFLD) significantly impacts the quality of life (QoL), particularly in both physical and psychological domains. This impression is further exacerbated by the presence of comorbidities such as diabetes and obesity, which can complicate the clinical management of the disease (Funuyet-Salas et al., 2021). Additionally, psychological factors, including depression, fatigue, and maladaptive coping strategies, are critical contributors to the reduced QoL experienced by NAFLD patients (Golubeva et al., 2022; Han, 2020). Given these associated influences, effective management of NAFLD must encompass a holistic approach that addresses the physical and psychological aspects of the disease, including the family support system and lifestyle factors.

Coping strategies can play a crucial role in helping patients with Non-Alcoholic Fatty Liver Disease (NAFLD) manage their condition and improve their quality of life. Effective coping mechanisms can empower patients to handle the psychological and emotional challenges associated with living with a chronic illness (Funuyet-Salas et al., 2022). For instance, adopting positive coping strategies, such as problem-solving and seeking social support, can help patients better manage stress and anxiety, which are common in chronic disease management (Knowles et al., 2020). These strategies can lead to improved adherence to treatment regimens and lifestyle modifications, such as dietary changes and regular physical activity, which are essential for managing NAFLD effectively (Funuyet-Salas et al., 2021). Moreover, coping strategies can enhance a patient's resilience, enabling them to maintain a positive outlook despite the challenges posed by NAFLD (Funuyet-Salas et al., 2022). This resilience can be fostered through cognitive-behavioral techniques that help patients reframe negative thoughts and focus on achievable health goals (Burra et al., 2020). Additionally, engaging in support groups or therapy can provide patients with a sense of community and shared experience, reducing feelings of isolation and enhancing emotional well-being (Funuyet-Salas et al., 2022).

Family social support can play a crucial role in the quality of life for patients with Non-Alcoholic Fatty Liver Disease (NAFLD), as family members often assume the primary caregiving role for individuals with

chronic conditions. This support can significantly influence the patient's life (Shea et al., 2022). Family support can provide emotional stability and reduce stress and anxiety, which are common in patients managing a chronic illness like NAFLD. Emotional support, such as family member's support, can help patients cope with the psychological burden of the disease, leading to improved mental health and overall well-being (Grønkjær et al., 2021). Family members can assist in managing the disease by helping patients adhere to medical treatments and lifestyle changes, such as dietary modifications and regular exercise, which are essential for managing NAFLD (Shea et al., 2023). This practical support can improve health outcomes and enhance the patient's quality of life.

While existing research highlights the roles of social support, health literacy, and coping strategies in influencing the quality of life (QoL) of patients with Non-Alcoholic Fatty Liver Disease (NAFLD), significant gaps remain in understanding how these factors interact and their relative contributions. Addressing this research gap is crucial for developing effective interventions aimed at enhancing the well-being of individuals living with NAFLD.

2. Methodology

The research adopted a descriptive correlational design to explore the relationship between identified predictors and the quality of life of NAFLD patients at the First Affiliated Hospital of Zhengzhou University, known for its advanced facilities and holistic healthcare services. Due to practical constraints and the unavailability of randomization, a convenient sampling method targeted a sample size of 200 participants who had undergone routine physical and FibroTouch examinations, categorizing them into NAFLD and non-NAFLD groups. The diagnosis of NAFLD followed the guidelines established by the Chinese Medical Association, which included criteria such as no history of excessive alcohol consumption and specific imaging results. Participants aged 30 to 60 who provided informed consent were included, while those with a history of significant alcohol consumption, certain medications, or specific liver diseases were excluded. This study aimed to gauge the prevalence of NAFLD and investigate potential risk factors, providing valuable insights into the health status of the diverse patient community.

The study used five structured questionnaires, all of which had pre-existing Chinese language versions, eliminating the need for back-translation. The Sociodemographic and Clinical Profile Questionnaire collected demographic and clinical data, while the SF-36 assessed overall health status and quality of life across eight domains, demonstrating strong validity and reliability (Cronbach's alpha > 0.70). The Health Literacy Management Scale (HeLMs) evaluated individuals' ability to utilize health information, showing high internal consistency (Cronbach's α ranging from 0.885 to 0.925). The Family Support Scale measured family support levels, with a KR-21 coefficient of 0.75, and the Brief COPE assessed coping strategies in response to stress, also exhibiting good internal consistency (Cronbach's alpha > 0.70). Together, these instruments provided a comprehensive assessment of factors influencing the quality of life of NAFLD patients.

The researcher sought approval from the hospital to include nursing staff by submitting a formal letter to the medical and nursing directors, and data collection was conducted through an electronic survey requiring informed consent from participants. If necessary, a coordinator was hired to encourage full responses and enhance data quality. Participants completed a questionnaire that covered medical history, education level, drinking and smoking history, sleep quality, and physical activity. Face-to-face surveys were conducted to gather detailed responses at strategic times, allowing for personalized assistance and high-quality data collection. Follow-ups with participants after the initial questionnaire clarified responses and gathered additional information. Ethical approval was obtained from the AUF-ERC, ensuring participant rights and welfare were protected. Informed consent was obtained, with participants free to withdraw at any time. The study aimed to identify risk factors for Non-Alcoholic Fatty Liver Disease (NAFLD), benefiting healthcare

professionals by enabling more targeted care for patients. Privacy and confidentiality were prioritized, with measures in place to safeguard data management. Finally, statistical analysis began with descriptive statistics and progressed to regression models to assess the impact of health literacy, family support, and coping strategies on quality of life, utilizing SPSS v29 for analysis.

3. Results

The demographic characteristics of the respondents (N = 203) reveal a predominantly male population, with 90.64% identifying as male and only 9.36% as female **[Table 1]**. The median age of the participants is 37 years, with an interquartile range of 7 years. In terms of education, a significant portion holds a college degree (41.38%) or a postgraduate degree (30.54%), while only a small fraction completed primary school (0.99%). Most respondents are married (91.13%), with a small number being single (7.88%) or widowed (0.99%). Monthly family income shows that over half (53.20%) earn between 5,000 and 10,000, while 29.06% earn more than 10,000. Regarding smoking history, 66.01% have never smoked or only smoked occasionally, while 26.60% are regular smokers. All participants reported drinking alcohol, and sleep duration indicates that 68.47% get between 6 to 7 hours of sleep. Physical activity levels reveal that 70.44% are sedentary, with walking being the most common form of exercise among those who engage in physical activity (64.53%). Additionally, 65.52% of respondents have a past medical history, with notable conditions including hypertension (8.87%) and fatty liver disease (20.20%). Only 20.20% of participants have been diagnosed with non-alcoholic fatty liver disease (NAFLD), and none reported current symptoms related to this condition.

In terms of their quality of life **[Table 2]**, indicates a generally high overall quality of life among respondents, with a median score of 84.625 and an interquartile range (IQR) of 12.521. Notably, physical functioning received the highest median score of 95.00 (IQR = 10.0). Similarly, both role limitation due to physical health and emotional problems achieved perfect median scores of 100.00. Energy and fatigue levels had a median score of 75.00 (IQR = 20.0), while emotional well-being scored a median of 68.00 (IQR = 20.0). Social functioning was also high, with a median score of 87.5 (IQR = 12.5). Pain perception showed a median score of 100.00 (IQR = 10.0), indicating minimal pain among respondents. However, general health perception was lower, with a median score of 65.00 (IQR = 25.0).

The descriptive summary of the health literacy for chronic disease patients reveals an overall median score of 25.00 **[Table 3]**, with an interquartile range (IQR) of 6.0. This score reflects the respondents' health literacy levels. Specifically, the ability to acquire information received a median score of 9.00 (IQR = 1.0). Communication and interaction skills also scored a median of 9.00 (IQR = 2.0). However, the willingness to improve health and economic support willingness scored lower, with medians of 4.00 (IQR = 0.0) and 2.00 (IQR = 2.0), respectively.

In **Table 4**, The Family Support indicates a generally high level of perceived family support among respondents, with an overall median score of 16.00 and an interquartile range (IQR) of 3.0. This score reflects a strong sense of support within families, as evidenced by the distribution across the support categories. Only 4.43% of participants reported a low level of family support (scores between 0-6), while a moderate level of support was observed in 30.05% of respondents (scores between 7-13). Notably, a significant majority, comprising 65.52%, reported a high level of family support (scores between 14-20).

Table 5 describe the descriptive summary of coping strategy scores reveals an overall median score of 2.04 with an interquartile range (IQR) of 0.321. This indicates a generally moderate level of coping strategies among respondents. Breaking down the scores further, avoidant coping strategies scored a median of 2.13 (IQR = 0.375). Problem-focused and emotion-focused coping strategies both received median scores of 2.00,

with IQRs of 0.500 and 0.250, respectively. This similarity indicates a balanced approach to coping, where participants utilize both problem-solving and emotional management techniques equally.

The correlation analysis among the outcome variable, utilizing Kendall's tau correlation coefficient, reveals important relationships **[Table 6]**. A significant negative correlation was found between quality of life and health literacy scale scores ($\tau = -0.2036$, **$p < 0.01$), indicating that higher health literacy is associated with improved quality of life. In contrast, the Family Support Scale shows a weaker, non-significant correlation with quality of life ($\tau = -0.0102$), suggesting that family support may not have a direct impact on quality of life in this sample. Additionally, there is a significant negative correlation between health literacy and family support ($\tau = -0.1792$, **$p < 0.01$), which may imply that as health literacy increases, perceptions of family support might decrease, or vice versa. The correlations involving coping strategies reveal no significant relationships with the other variables, with τ values close to zero for all comparisons.

4. Discussion

The findings from this study on patients with Non-Alcoholic Fatty Liver Disease (NAFLD) in Henan, China, reveal significant implications for medical-surgical nursing practice, particularly given the predominantly male demographic and the median age of 37 years. This gender imbalance necessitates targeted health education strategies addressing male-specific risk factors, as research indicates men are more susceptible to metabolic complications associated with NAFLD (Chen et al., 2022). Sedentary behavior is strongly associated with an increased likelihood of developing NAFLD, with each additional hour of sedentary time raising the risk by 4% (Croci et al., 2029), a trend particularly pronounced in older adults (Han et al., 2022). The high prevalence of sedentary lifestyles among respondents underscores the need for nurses to promote physical activity and develop individualized exercise plans, as lifestyle modifications can significantly alter the disease trajectory (Croci et al., 2019). Furthermore, the presence of comorbidities like hypertension emphasizes the importance of comprehensive care approaches, with nurses playing a vital role in monitoring these conditions and educating patients about their interrelation with liver health. Additionally, the reported limited sleep duration highlights an opportunity for nurses to address sleep hygiene, as poor sleep quality is linked to exacerbated liver disease; participants with poor sleep quality had higher odds of developing NAFLD compared to those with good sleep quality (Um et al., 2022). Lastly, while many respondents have a history of occasional smoking and regular alcohol consumption, it is crucial for nurses to emphasize lifestyle modifications and provide cessation support to mitigate further liver injury (Park et al., 2023). By integrating these strategies into practice, nurses can enhance patient care and improve health outcomes for individuals affected by NAFLD.

The analysis of quality of life among patients with Non-Alcoholic Fatty Liver Disease (NAFLD) indicated generally high scores, particularly in physical functioning and pain perception, suggesting effective disease management potentially influenced by healthcare access and lifestyle modifications (Croci et al., 2019; Park et al., 2023; Rizzo et al., 2021). However, the findings contrasted with previous research showing lower scores in these areas (Ozawa et al., 2021), raising questions about the generalizability of quality-of-life assessments across different populations. The lower median score for general health perception highlighted a critical gap in patients' awareness of their condition, as NAFLD often presents with non-specific symptoms like fatigue and abdominal discomfort that can significantly affect daily life (Yamamura et al., 2020). Additionally, the high levels of energy and fatigue indicated that while patients might function well physically, they still experience fatigue, which can impact overall quality of life (Golubeva et al., 2022). This underscores the need for nurses to assess fatigue levels and implement strategies that support both physical and mental

health, recognizing that psychological well-being significantly influences health-related quality of life (Funuyet-Salas et al., 2020).

Furthermore, the study revealed a high overall health literacy among NAFLD patients, indicating their ability to acquire health information effectively (Fabbri et al., 2020). However, lower scores in willingness to improve health and economic support highlighted gaps that nurses must address to enhance patient engagement in health management (Ito et al., 2021). The findings emphasized the importance of fostering a supportive environment that encourages patient motivation, with tailored education and resources being critical for overcoming barriers to engagement (Lei et al., 2023). Additionally, high perceived family support was noted as essential for managing chronic conditions, reinforcing the need for family involvement in treatment plans (Arora et al., 2021). Despite this, a small percentage of participants reported minimal support, suggesting a need for strategies to strengthen these networks (Shea et al., 2022). Finally, the moderate level of coping strategies among patients indicated a balanced approach to managing their condition, emphasizing the role of medical-surgical nurses in promoting adaptive coping techniques through educational programs and counseling (Huang et al., 2022).

The findings from the correlation analysis underscore the critical role of health literacy in enhancing the quality of life for patients with NAFLD. The significant negative correlation between health literacy and quality of life suggests that patients with higher health literacy levels experience better health outcomes and overall life satisfaction. This aligns with existing literature, which indicates that improved health literacy empowers patients to make informed decisions regarding their health, engage in self-management strategies, and adhere to treatment plans (Glass et al., 2021). Consequently, medical-surgical nurses should prioritize interventions that enhance patients' understanding of their condition and treatment options, thereby fostering an environment conducive to improved health outcomes (Huang et al., 2021).

Conversely, the weaker and non-significant correlation between family support and quality of life raises questions about the role of familial relationships in the context of NAFLD management. While family support is often perceived as a protective factor in chronic disease management (De Maria et al., 2020; Sousa et al., 2021), this study suggests that it may not have a direct impact on the quality of life for these patients. Additionally, the negative relationship between health literacy and family support indicates a complex interplay where increased health literacy may lead to diminished perceptions of family support. This suggests that healthcare professionals, particularly nurses, should assess not only patient education needs but also familial dynamics that could influence patient care (De Maria et al., 2020). By doing so, medical-surgical nurses can better tailor their approaches to support both the educational and emotional needs of patients, ultimately enhancing their overall well-being (Theofilou, 2023). Moreover, by fostering health literacy, nurses can empower patients to take charge of their health, which can lead to improved outcomes and greater life satisfaction.

5. Conclusion

The study on Non-Alcoholic Fatty Liver Disease (NAFLD) patients in Henan, China, underscores the need for targeted nursing interventions tailored to the predominantly male demographic, particularly considering the significant health implications associated with sedentary lifestyles and comorbidities like hypertension. The findings reveal a paradox where patients report high physical functioning yet exhibit lower general health perception and emotional well-being. This suggests that while physical symptoms may be managed effectively, there is a lack of comprehensive understanding regarding the long-term implications of NAFLD. Nurses must prioritize mental health assessments and promote physical activity, alongside developing individualized exercise plans, to enhance overall patient well-being.

Additionally, the study highlights the importance of health literacy and family support in managing NAFLD. Although patients demonstrate high health literacy, gaps in motivation and resource availability indicate a need for tailored education and supportive interventions. Engaging family members in treatment plans is crucial, as it fosters adherence to healthier lifestyle choices. The significant correlation between health literacy and quality of life emphasizes that empowering patients with knowledge can lead to improved health outcomes. By addressing the physical, psychological, and educational needs of patients, medical-surgical nurses can play a pivotal role in optimizing care for those affected by NAFLD, ultimately enhancing their quality of life.

6. Recommendations

Based on the findings of the study on patients with Non-Alcoholic Fatty Liver Disease (NAFLD) in Henan, China, several recommendations for nursing practice emerged to enhance patient care and improve health outcomes. Targeted health education strategies should be developed, particularly for the predominantly male demographic, focusing on male-specific risk factors associated with NAFLD. Nurses should raise awareness about the risks of sedentary lifestyles, encouraging regular physical activity and providing individualized exercise plans. Comprehensive care approaches are vital; nurses must monitor comorbid conditions like hypertension and educate patients on their relationship with liver health. Addressing sleep quality through education on sleep hygiene and offering resources for smoking cessation and alcohol reduction are also essential. Additionally, promoting healthy coping strategies through counseling can help patients manage their conditions more effectively.

Enhancing health literacy is another key recommendation. Nurses should implement tailored educational interventions that empower patients to understand NAFLD and engage in self-management strategies, thereby improving adherence to treatment plans. Engaging family members in educational sessions can reinforce support for managing chronic conditions. Incorporating mental health assessments into routine care is crucial, as psychological well-being significantly impacts quality of life. Nurses should regularly assess fatigue levels and promote energy conservation techniques to improve overall well-being. Continuous research is encouraged to explore discrepancies in quality of life assessments across populations, and implementing feedback mechanisms for patient input on educational interventions can further enhance nursing strategies. By integrating these recommendations, healthcare providers can significantly improve the management of NAFLD and overall patient outcomes.

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Table 1. Demographic characteristics of the respondents.

Characteristic	N = 203
Sex – n (%)	
Male	184 (90.64%)
Female	19 (9.36%)
Age – Median (IQR)	37.00 (7.00)
Highest educational attainment	
Primary school	2 (0.99%)
Junior high school	13 (6.40%)
Senior high school	16 (7.88%)
Technical secondary school	25 (12.32%)
College degree	84 (41.38%)
Post graduate degree	62 (30.54%)
PhD	1 (0.49%)
Marital status – n (%)	
Single	16 (7.88%)
Married	185 (91.13%)
Widowed/Widower	2 (0.99%)
Monthly Family Income – n (%)	
Below 3,000	6 (2.96%)
3,000-4,999	30 (14.78%)
5,000-10,000	108 (53.20%)
More than 10,000	59 (29.06%)
Smoking history – n (%)	
Never smoked or only smoked occasionally (<1pack/month)	134 (66.01%)
Smoked regularly for years	54 (26.60%)
Quit smoking for years	15 (7.39%)
Drinking history (Yes) – n (%)	203 (100%)

Sleep duration – n (%)
    <6 hours   23 (11.33%)
    6-7 hours   139 (68.47%)
    7-9 hours   41 (20.20%)
Physical activities – n (%)
    None   37 (18.23%)
    Walking   131 (64.53%)
    Power walking   32 (15.76%)
    Jogging   44 (21.67%)
    Swimming   3 (1.48%)
    Cycling   12 (5.91%)
    Climbing   15 (7.39%)
    Ball   17 (8.37%)
    Aerobics   2 (0.99%)
    Strength training   4 (1.97%)
    Mountain   3 (1.48%)
    Others   5 (2.46%)
Level of physical activity – n (%)
    Sedentary   143 (70.44%)
    Lightly active   38 (18.72%)
    Moderately active   14 (6.90%)
    Very active   8 (3.94%)
Medical history – n (%)
    With past medical history   133 (65.52%)
        Hypertension   18 (8.87%)
        Diabetes   5 (2.46%)
        Hyperlipidemia   7 (3.45%)
        Chronic heart disease   3 (1.48%)
        Stroke   1 (0.49%)
        Hepatitis   4 (1.97%)
        Fatty liver   41 (20.20%)
        Gout   7 (3.45%)
        Osteoarthritis   3 (1.48%)
        Gallstone   3 (1.48%)
        Cancer   1 (0.49%)
        Others   5 (2.46%)
Diagnosed with NAFLD – n (%)   41 (20.20%)
Current symptoms related to NAFLD – n (%)   0 (0%)

Table 2. Descriptive summary of Quality of life

	Median	IQR
Overall score	84.625	12.521
Physical functioning	95.00	10.0
Role limitation due to physical health	100.00	0.0
Role limitations due to emotional problems	100.00	0.0
Energy/Fatigue	75.00	20.0

Emotional well-being	68.00	20.0
Social functioning	87.5.00	12.5
Pain	100.00	10.0
General health perception	65.00	25.0

Table 3. Descriptive summary of Health literacy scale for Chronic disease patients

	Median	IQR
Overall score	25.00	6.0
Ability to acquire information	9.00	1.0
Communication and interaction skills	9.00	2.0
Improving health willingness	4.00	0.0
Economic support willingness	2.00	2.0

Table 4. Descriptive summary of Family Support

	Median	IQR
Overall score	16.00	3.0
FSS category	n	%
Low level (0-6)	9	4.43
Moderate level (7-13)	61	30.05
High level (14-20)	133	65.52

Table 5. Descriptive summary of Coping strategy

	Median	IQR
Overall score	2.04	0.321
Avoidant	2.13	0.375
Problem focused	2.00	0.500
Emotion focused	2.00	0.250

Table 6. Relationship between Health literacy scale for Chronic disease patients, Family Support Scale, Coping Strategy and Quality of Life of patients with NAFLD

	1	2	3
1. Quality of Life	-		
2. Health literacy scale for Chronic disease patients	-0.2036**	-	
3. Family Support Scale	-0.0102	-0.1792**	-
4. Coping Strategy	-0.0100	0.0122	-0.0793