

# Resilience in Remote Learning: Coping Strategies of Post-Registration Undergraduate Nursing Students

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## Abstract

*This study delves into the stress experienced by undergraduate nursing students, particularly those engaged in open and distance learning, as they grapple with diverse stressors in both their academic pursuits and personal lives. Coping mechanisms play a pivotal role in mitigating stress, with a positive and optimistic attitude coupled with effective coping strategies aiding in stress reduction. However, existing research, as exemplified by many scholars, predominantly focuses on stress levels among Bachelor of Nursing Science students, leaving a significant gap in understanding coping mechanisms specific to undergraduate nursing students in Malaysia. This quantitative research employs a non-experimental descriptive design, involving 100 participants selected through non-probability convenience sampling. Self-administered questionnaires, including the modified Brief Cope's questionnaire, are employed for data collection. The findings reveal that religious coping mechanisms, encompassing practices such as prayer and meditation, score the highest with a mean of 3.49 (SD=0.67), surpassing substance-use coping mechanisms, which yielded a mean of 1.20 (SD=0.49), involving the use of alcohol and drugs to alleviate stress. Additionally, a significant positive relationship is identified between the predominantly used coping mechanism (religion) and demographic variables such as age ( $p=0.02$ ) and duration of service ( $p=0.04$ ). In conclusion, this study sheds light on the prevalence of religious coping mechanisms among undergraduate nursing students in Malaysia, emphasising the need for tailored support and interventions to enhance their coping strategies and overall well-being.*

**Keywords:** coping mechanism, e-learning, undergraduate nursing, open and distance learning, post-registration nursing students, online learning

## 1. Introduction

In the contemporary landscape, the nursing profession is confronted with increasing challenges and demands, necessitating continuous improvement in academic qualifications to meet evolving societal expectations.

Open and distance learning (ODL) programmes, especially those conducted on a part-time basis, have emerged as the preferred choice for further academic pursuits among nurses. This modality offers the advantages of flexibility, allowing students to learn from the comfort of their homes or workplaces, fostering a relaxed and comfortable learning environment.

However, the transition to undergraduate programmes through distance learning introduces a significant impact, notably stress, among nurses. It requires effective time management to balance the responsibilities of studies, employment, and personal life. This stress is compounded by the challenges of competing responsibilities, limited support from tutors, and university administration, as indicated by Nyatsanza et al. (2013).

The ODL framework for nursing programmes, while offering flexibility, can be a significant source of stress due to the unique demands it places on students. The asynchronous nature of ODL means that students often lack real-time interaction and immediate feedback from instructors, which can lead to feelings of isolation and uncertainty regarding academic performance. The pressure to self-regulate and maintain discipline in a less structured environment requires high levels of self-motivation and time management skills. Additionally, the limited face-to-face interaction with peers and mentors can exacerbate feelings of disconnection and stress. Nyatsanza et al. (2013) emphasise the added burden of balancing clinical duties with academic requirements, which can be overwhelming without adequate institutional support. Effective strategies and support systems are essential to help students navigate these challenges and succeed in their studies.

The global pandemic has further transformed the educational landscape, pushing for the integration of digital platforms and online learning. Nursing students are now accustomed to virtual platforms for their studies. This shift, while enriching learning experiences, introduces stressors such as heavy workloads, unclear assignments, and poor motivation, as highlighted by Samson-Akpan (2017) and Ganesan et al. (2018). The potential consequences of stress among nursing students, as noted by Prasad et al. (2013) and Nyatsanza et al. (2013), extend beyond academic performance to encompass mental and physical well-being, productivity, and even the contemplation of suicidal ideation.

Despite the prevalence of stress among nursing students, the focus on effective coping strategies remains understudied. Prasad et al. (2013) reported coping mechanisms applied by nursing students, with 46.7% experiencing moderate stress, 51.6% mild stress, and only 1.7% severe stress. However, a significant gap exists in understanding the coping strategies employed by undergraduate nursing students in Malaysia. Al-Dubai et al. (2011) conducted a study among medical faculty in Malaysia, which revealed that active coping strategies, religious coping, reframing, planning, and acceptance were commonly adopted.

In the context of nursing education, there is a lack of exploration into coping mechanisms, an area critical for enhancing the well-being and academic success of nursing students. This research aims to address this gap by examining stress levels, identifying coping strategies, and understanding how universities can better support nursing students in managing stress associated with ODL programmes.

## **2. Literature Review**

### **2.1. Theoretical Framework**

Lazarus and Folkman's (1988) Transactional Model of Stress and Coping serves as the theoretical framework guiding this study, particularly in understanding the coping mechanisms of nursing students engaged in ODL. According to this model, stress is a result of the interaction between an individual and their environment, emphasising that the perception of a stressful event is more critical than the event itself. This perception is shaped through two main cognitive processes: primary and secondary appraisals. Primary appraisal involves evaluating whether an event is irrelevant, benign-positive, or stressful. For nursing students in ODL programmes, primary appraisal might include assessing the immediate impact of academic pressures, the potential for future challenges, and the opportunities for personal growth and learning (Ganesan et al., 2018). Understanding these appraisals helps to contextualise the students' emotional responses and the subsequent coping strategies they employ.

Carver's (1989) extension of this model further refines the understanding of coping by categorising strategies into problem-focused and emotion-focused coping. Problem-focused coping is used when students perceive that they can exert control over the stressful situation, enabling them to address the problem directly. This could include time management techniques, seeking academic support, or utilising digital tools effectively. Emotion-focused coping, on the other hand, is employed when students believe that the stressor is beyond their control, leading them to manage their emotional response to the stress. This might involve practices such as seeking social support, engaging in relaxation techniques, or cognitive reframing. The secondary appraisal process, which assesses the available coping resources and strategies, is crucial in determining the approach students take.

Effective coping mechanisms, as Bamuhair et al. (2015) suggest, act as stabilising factors that aid students in adapting to the challenges posed by ODL, thereby mitigating distress and enhancing their overall well-being and academic performance.

In the context of ODL for nursing students, these theoretical frameworks highlight the dynamic nature of coping. The stress experienced in ODL settings, including the pressures of self-regulation, limited immediate feedback, and balancing clinical duties with academic responsibilities, can significantly impact students' mental health and academic outcomes. Nyatsanza et al. (2013) point out that the interpretation of these stressors, through primary and secondary appraisals, determines the effectiveness of the coping strategies employed.

Problem-focused coping strategies, such as organising study schedules and seeking help from tutors, are critical when students feel they have control over their learning environment. When these stressors feel overwhelming, emotion-focused strategies, such as discussing concerns with peers or practising mindfulness, become essential. By applying Carver's (1989) concepts to Lazarus and Folkman's (1988) framework, this study aims to explain the specific coping mechanisms nursing students use and identify areas where universities can provide better support to enhance these students' academic and personal resilience.

## 2.2. The Concept of Coping

The term "coping" in psychology refers to a cognitive and behavioural set aimed at problem-solving and stress reduction, frequently employed by students through effective time management, social support, and positive reappraisal (Bamuhair et al., 2015).

Originated by Richard Lazarus, coping has two main components: problem-focused (changing a situation) and emotion-focused (changing one's attitude towards a situation) (Petkova, 2020). Problem-focused coping, also known as active coping, involves addressing the problem directly, such as by seeking social support (Bista et al., 2018). Social support networks assist undergraduate students in effectively coping with stress by enhancing their ability to adjust to demands (Bista et al., 2018).

On the other hand, emotion-focused coping, defined as passive coping, involves avoiding stressors and attempting to influence and control a situation. This type of coping is associated with adaptation difficulties like anxiety and depression and includes strategies such as self-blame, distancing, focusing on the positive, and self-isolation.

Coping strategies are classified into active (behavioural or psychological responses aimed at changing the situation positively) and avoidant (psychological risk factors for adverse responses like denial or rejecting the situation of stress). Coping mechanisms are influenced by students' backgrounds, showing variations in psychological processes to prevent stress. An optimistic attitude, as highlighted by Bista et al. (2018), aids nursing students in effectively coping with stress.

The study by Prasad et al. (2013) found that 86.7% of undergraduate nursing students in Mangalore, India, coped well, with none coping poorly. Coping mechanisms, identified as stabilising factors, contribute to psychosocial adaptation during stressful events and result in fewer symptoms of depression among nursing students (Bamuhair et al., 2015). The ability to modify situations leads to more adaptive outcomes.

## 2.3. Coping Mechanism Used in Education

Musingafi et al. (2015) emphasised the challenges faced by ODL students in their studies, a sentiment shared by Samson-Akpan (2017) in the context of undergraduate nursing students who encounter academic stressors such as assignments, final examinations, presentations, research projects, and clinical reports. Rafati et al. (2020) supported this by noting high stress levels among nursing students, particularly in clinical settings.

Ab and Hassim (2009) reported that 41.9% of medical students at University Putra Malaysia experienced emotional disorders, and coping strategies such as denial, behavioural disengagement, substance abuse, self-blaming, self-distraction, and emotional venting had low mean scores. Conversely, active coping strategies like

planning, acceptance, and religious resolution scored the highest. However, nursing students in Kathmandu, as found by Bista et al. (2017), displayed different stress levels, with 61.5% experiencing moderate stress, 27.9% severe stress, and only 10.6% reporting mild stress. Emotion-focused strategies were predominantly used (58.3%), while problem-focused strategies were limited to 3.9%.

In another study by Samson-Akpan (2017), 52.6% of undergraduate nursing students in Calabar, Nigeria, reported high stress levels, and 47.4% had low stress levels. Seeking diversion, self-reliance, and avoidance were the most commonly used coping strategies. Nyatsanza et al. (2013) observed that coping methods are general responses rather than specific reactions to the nature of stress, while a study by Al-Dubai et al. (2011) noted that ethnic, cultural, and socioeconomic characteristics influence coping mechanisms, with females more inclined towards emotional and avoidant strategies than males.

#### **2.4. Assessment of Coping**

In evaluating coping mechanisms, various approaches such as episodic and situational methods have been employed to understand an individual's habitual coping strategies. Episodic measures focus on specific coping strategies used in particular stressful situations, with assessments adjusted over time as measuring tools in social and educational institutions.

The eight coping mechanisms, termed scales, have evolved to include cognitive coping, distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, playful problem-solving, and positive reappraisal (Nyatsanza et al., 2013). Additionally, Ganesan et al. (2018) outlined coping mechanisms, dividing them into primary appraisal, which involves motivation significance with categories like irrelevant, benign-positive, and stressful characterised by harm or loss, threat, and challenge. Secondary appraisal entails evaluative judgment based on the degree of control and ability to enhance the situation.

Hence, the objectives of our study are: (1) To identify the coping mechanism mostly used by undergraduate nurses and (2) To determine the relationship of any coping mechanism with the social demographic variables of the respondents.

### **3. Research Method**

#### **3.1. Setting, Design and Sampling**

The research was conducted at Open University Malaysia's Petaling Jaya Learning Centre (OUMPJLC) because of the university's 35 Learning Centres, this is the main learning centre that offers the post-registration Bachelor of Nursing Science with Honours programme. The research employed a cross-sectional quantitative design.

A survey questionnaire was utilised for the collection of primary data. The sample size was based on non-probability convenience sampling. As the programme had 175 active students during the cross-sectional study period, the online Raosoft calculator was used to estimate the sample size. Hence, 120 students were recruited from the calculation, with 5% margin error, 95% confidence level and 50% response distribution.

#### **3.2. Instrument**

Self-administered surveys were employed to evaluate the predominant coping strategies utilised by the nursing students. Adapted from a 28-item questionnaire by Carver et al. (1989), the chosen tool was straightforward and well-established. Permission to use the questionnaire was sought from Professor Carver but response from a colleague of his indicated that he had passed away. As there was open access to the questionnaire and the colleague was informed of this research, permission was considered granted.

The BRIEF COPE, a 28-item multidimensional measure assessing coping strategies in response to stressors, features 14 two-item subscales, with each analysed independently. The questionnaire consists of two sections: Section A encompasses nine queries on sociodemographic variables, such as gender, age, race, religion, educational status, semester intake, working area, duration of services, and sources of information regarding

coping mechanisms. Section B involves 28 questions adapted from BRIEF COPE, employing a dichotomous scale from (1) "I haven't been doing this at all" to (4) "I've been doing this a lot", facilitating a comprehensive analysis of coping strategies (Carver et al., 1989).

### 3.3. Pilot Study, Validity and Reliability

A pilot study was conducted with 10 participants according to inclusion criteria. The Statistical Package for the Social Sciences (SPSS) version 26.0 was used to analyse the reliability of the questionnaire by using Cronbach's alpha. The results showed  $\alpha \geq .875$  and in this study, Cronbach's Alpha with  $\alpha \geq 0.7$  was acceptable (Resnick, 2015). Content validity was checked by two lecturers. The participants in the pilot study were excluded from the main study.

### 3.4. Ethical Considerations

Ethical consent was obtained from the:

- i. Director of the OUMPJLC
- ii. Open University Malaysia (OUM) Ethical Approval Committee Board
- iii. Respondents, who filled up a consent form (it stated that they could refuse to participate and stop at any time without facing any penalty).

### 3.5. Data Analysis

Descriptive statistics were relied upon to analyse quantitative data by using frequencies, percentages, means and standard deviation. Inferential statistics were used to determine the relationship between social demographic variables and the coping mechanisms most used by the students. The Chi Square test was used to identify the relationship between the dependent and independent variables. A value of  $p < 0.05$  was generally adopted to indicate a significant effect. All data were analysed using SPSS software.

## 4. Findings and Discussion

### 4.1. Response Rate

Surveys using Google Forms were sent to the students through WhatsApp. Out of the 120 participants who consented, 109 completed the questionnaires. Nine incomplete sets were excluded, resulting in a retrieval rate of 100% ( $n=100$ ). Data entry and analysis were performed using IBM SPSS version 26. SPSS imputed missing data after careful examination during analysis.

### 4.2. Normality Test

Normality test of data is a prerequisite in choosing a suitable statistical test (Prabhaker et al., 2019). The Kolmogorov-Smirnov test was used for this study because the sample was more than 50. The acceptable range for normality is skewness and kurtosis lying between -1.96 to +1.961 and -3 to 3 (Prabhaker et al., 2019). Normality was also checked using the skewness and kurtosis of the data, which also denote the normality in data distribution as p-value was also significant ( $p \leq 0.05$ ).

### 4.3. Demographic Variables

This study encompassed nine demographic variables, consisting of gender, age, race, religion, educational level, semester/intake, working department, duration of service, and source of information. Table 4.1 provides an overview of the frequency, percentage distribution, mean, and standard deviation of these variables among the respondents who comprised nursing students engaged in ODL at OUMPJLC.

The study's respondents were predominantly Malay (90%), with 88% female participants, and 44% of all respondents aged 36 to 42. Regarding educational status, 77% were pursuing a bachelor's degree while 23%

possessed a diploma. Semester distribution indicated that they were scattered from semester 1 to 9. In terms of work department, 35% of the students were in Obstetrics & Gynaecology, 17% in Emergency, and 15% in ICU.

Regarding duration of service, 33% had worked 1 to 6 years, 25% for 7 to 11 years, and 33% for 12 to 16 years while the rest had worked for more than 17 years. Their primary sources of information on coping mechanisms were the Internet (47%) and their friends (39%).

**Table 4.1.** Demographic variables among respondents (n=100)

Demographic Variables	Frequency (n)	Percentage (%)	Mean	SD
<b>Gender</b>				
Male	12	12		
Female	88	88		
<b>Age</b>				
18- 26	20	20		
27-33	27	27		
34-40	44	44		
41-53	9	9		
<b>Race</b>				
Malays	90	90		
Chinese	6	6		
Indian	3	3		
Others	1	1		
<b>Religion</b>				
Islam	90	90		
Buddhist	6	6		
Hindu	3	3		
Others	1	1		
<b>Highest Educational level</b>				
Diploma	23	23		
Bachelor	77	77		
<b>Semester Intake</b>			5.68	2.260
1	4	4		
2	6	6		
3	6	6		
4	16	16		
5	13	13		
6	21	21		
7	9	9		
8	9	9		
9	16	16		
<b>Working Department</b>				
Anaest / ICU	15	15	9.98	7.222
Dermatology	4	4		
Emergency Department	17	17		
Forensic	3	3		
Medical	1	1		
Surgical	3	3		
Genetic	6	6		
Nephrology	2	2		
Neurology	1	1		
Orthopeadic	3	3		
Plastic Surgery	1	1		
Rehabilitation	3	3		
Pediatric	6	6		
Obstetrics & Gynaecology	35	35		
<b>Duration of Service</b>			2.20	1.044
1-6 years	33	33		
7-11 years	25	25		

Demographic Variables	Frequency (n)	Percentage (%)	Mean	SD
12-16 years	33	33		
17-23 years	7	7		
24-30 years	2	2		
<b>Source of information</b>			5.09	1.964
Newspaper	5	5		
Medical personnel	8	8		
Family members	1	1		
Friends	39	39		
Internet	47	47		

#### 4.4. BRIEF COPE

Specifically, the second objective was to determine the most used coping mechanisms by undergraduate nurses. The aim is to answer the second research question, “Which coping mechanism is most used in managing stressful events?” The following table shows the results of the most used coping mechanisms by undergraduate nurses at OUMPJLC.

The results show a high score for religion (prayer, meditation, spirituality and finding comfort in religion), with a mean of 3.49 (SD=0.67). This is followed by acceptance (acknowledging reality and learning to live with it) with a mean of 3.42 (SD=0.71) and planning (coming up with strategies and thinking hard about what steps to take), with a mean of 3.37 (SD= 0.77).

Meanwhile, substance use (alcohol and drug abuse) is the least used coping skill with a mean of 1.20 (SD=0.49). The second least used is behavioural disengagement (giving up trying to deal and attempt to cope), with a mean of 2.45 (SD=0.85).

**Table 2.** Coping mechanism used among respondents (n=100)

Technique/Skill	Mean	SD
Religion	<b>3.4900</b>	<b>.67412</b>
Acceptance	3.4200	.71322
Planning	3.3700	.77401
Active-coping	3.3700	.66142
Self-distraction	3.2700	.70861
Positive-reframing	3.2200	.81128
Use-instrumental support	3.2100	.72884
Use-emotional support	3.0700	.76877
Denial	2.8600	.65165
Venting	2.6400	.64385
Humour	2.5300	.77140
Self-blame	2.5000	.74536
Behavioural disengagement	2.4500	.85723
Substance use	1.2000	.49237

*\*Bold indicates the most coping mechanism used*

#### 4.5. The Relationship of Coping Mechanism with Social Demographic Variables

**Table 3.** Relationship of any coping mechanism (religion) with social demographic variables of respondent (n=100)

Demographic Variables	n	p-value
<b>Gender</b>		
Male	12	0.88
Female	88	
<b>Age</b>		
18- 26	20	<b>0.02</b>
27-33	27	
34-40	44	

Demographic Variables	n	p-value
41-53	9	
<b>Race</b>		
Malays	90	0.279
Chinese	6	
Indian	3	
Others	1	
<b>Religion</b>		
Islam	90	0.279
Buddhist	6	
Hindu	3	
Others	1	
<b>Education Level</b>		
Diploma	23	0.363
Bachelor	77	
<b>Semester/ Intake</b>		
1	4	0.695
2	6	
3	6	
4	16	
5	13	
6	21	
7	9	
8	9	
9	16	
<b>Working Department</b>		
Anaesthetics / ICU	15	1.000
Dermatology	4	
Emergency Department	17	
Forensic	3	
Medical	1	
Surgical	3	
Genetic	6	
Nephrology	2	
Neurology	1	
Orthopaedic	3	
Plastic Surgery	1	
Rehabilitation	3	
Paediatric	6	
Obstetrics & Gynaecology	35	
<b>Duration of Services</b>		
1-6 years	33	<b>0.041</b>
7-11 years	25	
12-16 years	33	
17-23 years	7	
24-30 years	2	
<b>Source of Information</b>		
Newspaper	5	0.894
Medical personnel	8	
Family members	1	
Friends	39	
Internet	47	

*\*Bold indicates a relationship significant at  $p \leq 0.05$*

Table 3 shows the results of the relationship between social demographic variables with the most used coping mechanism among the respondents. A Chi Square test was used to identify the relationship between the dependent and independent variables. The P-value used in this test was  $p \leq 0.05$ . As a result, only age ( $p=0.02$ )



and duration of service ( $p=0.04$ ) were detected as having a positive relationship with the most used coping mechanism (religion). Social demographic variables such as gender, race, religion, educational level, working department, semester intake and source of information did not have a relationship with the respondents' coping mechanism.

## 5. Discussion

### 5.1. Knowledge on Coping Mechanisms

A significant proportion of respondents (47%) indicated that they obtained their knowledge of coping mechanisms from the Internet. This underscores the prevalent trend of seeking information quickly and conveniently through online sources, allowing respondents to access information about the functions and categories of coping mechanisms and how to effectively manage stress. Utilising keywords like "coping mechanism" facilitates an active response to stress, ensuring a positive outlook in stress management. Social support networks, as emphasised by Bista et al. (2018), play a crucial role in aiding undergraduate students to cope effectively by adapting to the demands they face.

Respondents demonstrated a preference for active coping mechanisms over passive ones, aligning with Petkova's (2020) distinction made by Richard Lazarus between problem-focused and emotion-focused coping. The transactional model of stress and coping by Lazarus and Folkman (1988) served as the theoretical framework, indicating that stressors such as heavy workload and unclear assignments negatively impact the mental and physical well-being of undergraduate students.

Primary appraisal involves interpreting stressors as challenges or threats, while secondary appraisal seeks to manage situations and foster a positive environment. The emphasis on problem-focused coping, akin to active coping, is evident in the predominant use of religious coping mechanisms among undergraduates. The extensive use of the Internet to acquire information on positive coping mechanisms is noteworthy.

Conversely, emotion-focused coping, characterised by passive strategies, involves avoiding and attempting to influence stressors. Past studies (Al-Dubai et al., 2011; Prasad et al., 2013; Bamuhair et al., 2015; Bista et al., 2018) consistently report that students employ active coping strategies, such as active coping, religious coping, planning, and acceptance, more frequently than avoidant strategies like denial, self-blame, and substance use. Nevertheless, it is essential to acknowledge that some students still resort to avoidant coping strategies, which are considered risk factors for adverse responses to stress.

### 5.2. Coping Mechanisms Among Post-Registration Undergraduate Nursing Students

The findings of coping mechanisms among undergraduate nursing students engaged in open learning distance programmes at OUMPJLC highlight the predominant use of religious coping skills, encompassing practices like prayer, meditation, and finding comfort in religion and spiritual beliefs, with a mean score of 3.49 ( $SD=0.67$ ).

In contrast, substance use, involving alcohol and drugs to alleviate stress, received a lower score with a mean of 1.20 ( $SD=0.49$ ). In this study, seeking solace in religion and spiritual beliefs emerged as the most utilised coping mechanism, attaining a mean score of 3.49 ( $SD=0.67$ ). This approach is perceived as accessible and straightforward, requiring minimal physical effort and resources, making practices like prayer easily adaptable to relaxed settings.

Previous research by Al-Dubai, et al. (2011) on medical science undergraduates in Malaysia indicated a preference for active coping mechanisms such as religious coping, planning, and acceptance to manage stress. A study conducted at Universiti Putra Malaysia by Ab and Hassim (2009) affirmed that religious coping, particularly resolution, received the highest mean scores ( $2.11 \pm 0.79$ ) among medical students. These findings align with the current study, emphasising the significance of religious coping methods.

Meditation, a component of religious coping, is highlighted for its role in fostering a relaxed state of mind, reducing anxiety, and improving subjective well-being, as noted by George (2012). Aflakseir and Mahdiyar (2016) supported these assertions, indicating that individuals who frequently engage in religious beliefs and practices are better equipped to cope with challenging situations, including physical illness and stress. Numerous

studies conducted in Iran also reported positive correlations between religious beliefs and mental health, as emphasised by Koenig et al. (2012).

However, conflicting results exist in the literature, with studies revealing varying impacts of religious coping on mental health outcomes. Bryan et al. (2016) identified significant interactions between ambivalence over emotional expression (AEE), depressive symptoms, and anxiety symptoms, which were moderated by religious coping. Additionally, Hebert et al. (2009) found that negative religious coping, such as feeling abandoned or angry at god, predicted adverse mental health outcomes, including depressive symptoms and lower life satisfaction, among women.

Drawing from previous research by Bista et al. (2017), nursing students in Kathmandu predominantly employed emotion-focused coping strategies, representing avoidance and changes in attitude, including self-blame and self-distraction. This contrasts with problem-focused coping, involving active approaches like planning and religious resolution. These findings underscore the nuanced nature of coping mechanisms among diverse populations of nursing students, emphasising the importance of recognising and addressing individual preferences and strategies for stress management.

### **5.3. Association of Coping Mechanisms with Demographic Variables**

The Chi-Square test was employed to explore the association between dependent and independent variables, utilising a significance level of  $p \leq 0.05$ . The outcomes revealed a positive relationship between the predominant coping mechanism (religion) and two demographic variables: age ( $p=0.02$ ) and duration of service ( $p=0.04$ ). In contrast, other social demographic variables, including gender, race, religion, educational level, working department, semester intake, and source of information, exhibited no significant correlation with the coping mechanisms employed by the respondents.

Previous research by Al-Dubai et al. (2011) emphasised the influence of ethnicity, culture, and socioeconomic characteristics on coping mechanisms. However, in this study, only age ( $p=0.02$ ) and duration of service ( $p=0.04$ ) exhibited a positive association with the primary coping mechanism, which is religion. The findings suggest that age, being a subjective factor, can impact decision-making. Notably, 44% of the undergraduate students fell within the age range of 34-40 years, while 33% had 12-16 years of service. At this career stage, individuals often focus on their professional growth, managing stress through avoidance and engaging in religious practices like prayer, aligning with the spiritual aspect of the coping mechanisms.

Existing literature suggests that different age groups experience varying levels of exposure to stressors. Middle-aged adults, for instance, tend to balance family and career responsibilities (Chen et al., 2018). Conversely, a study by Torralba et al. (2021) questioned the positive role of religious dimensions in the development of adolescents and young generations, finding no significant support for its positive impact, likely due to lower religiosity levels compared to previous studies. The results underscore the importance of considering age-related factors in understanding coping mechanisms, particularly reliance on religious coping strategies, as individuals navigate diverse life stages.

### **5.4. Implications to Profession and ODL**

The application of coping mechanisms holds significant benefits not only for students but for individuals facing stress in various aspects of life, whether in educational pursuits or daily challenges encountered at work or home. As the educational landscape undergoes changes, particularly with the shift to online learning, coping mechanisms become crucial tools for managing the associated stressors. As post-registration undergraduate students widely adopt these coping strategies, they gain the ability to navigate the complexities of balancing life, work, and studies.

This proficiency not only contributes to their effectiveness as undergraduate students but also prepares them for roles as staff nurses and other responsibilities. Effectively managing stress, which often manifests in both physical and mental changes, leads to a more controlled and peaceful life. This coping mechanism proves beneficial across society, addressing stress-related challenges encountered by individuals from various walks of life.

For post-registration undergraduate students in the Bachelor of Nursing Science programme at OUMPJLC, mastering coping mechanisms not only facilitates their academic journey but can also contribute to higher satisfaction levels with ODL. This newfound capability in stress management may extend to postgraduate education, if pursued, further enhancing the overall educational experience. Thus, the implications of incorporating coping mechanisms into nursing practice extend beyond academic settings, fostering resilience and well-being in the broader community.

### 5.5. Direction of Future Research

The outcomes of this study suggest potential recommendations for significant groups in nursing and future research endeavours, aiming to enhance the provision and dissemination of coping mechanisms for stress among undergraduate nursing students. As these students become adept in employing coping mechanisms, the knowledge gained can be extended to nursing professionals in hospital or clinic settings, contributing to stress alleviation in the workplace. This acquired skill set can further extend to patients and the local community, addressing mental health issues associated with stress and fostering a healthier community both physically and mentally.

While this study focused on undergraduate nurses at OUMPJLC, future research could explore coping mechanisms among students in other courses or at other educational levels at different government universities. Such comparative studies would shed light on the variations in coping mechanisms across institutions and academic levels, contributing to a more comprehensive understanding.

Additionally, employing a mixed research method, combining qualitative and quantitative approaches, could offer deeper insights into various coping mechanism types. Inclusion of students from diverse courses such as in the study would provide a broader perspective on the effectiveness of coping mechanisms.

To maximise the community benefits of coping mechanisms, the authors recommend incorporating coping mechanism education into the programme, particularly in *Mata Pelajaran Umum*/General Studies (MPU) subjects. This inclusion in the syllabus could empower students to address their stress issues from the learning centre, enabling them to share this knowledge with family, colleagues, and patients, thereby positively impacting the broader community.

## 6. Conclusion

In summary, this study delved into a novel perspective, investigating knowledge about coping mechanisms, predominantly utilised strategies, and the correlation between coping mechanisms and demographic variables among undergraduates in this study area. Results revealed that 47% of students relied on the Internet to acquire and update their coping mechanism knowledge. Notably, the predominant coping mechanism chosen by most post-registration undergraduate Bachelor of Nursing Science students at OUMPJLC is religious coping, recognised as an effective strategy supported by numerous prior studies. This positive coping method could be incorporated into the curriculum of MPU subjects at OUM as a module or syllabus. Regarding the association between coping mechanisms and demographic variables among undergraduates, only age and duration of service exhibited significant correlations ( $p$  value= $<0.05$ ) with religious coping mechanisms. This could be attributed to post-registration undergraduate students striving to balance their career, academic pursuits, and familial responsibilities.

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