

## Correlation Analysis of Self-Concept and Interpersonal Communication Among Generation Z Nursing Students at Pre-Professional Nursing Practice

Dewi Setya Paramitha<sup>1\*</sup>, Noor Amaliah<sup>1</sup>, Herman Ariadi<sup>1</sup>

<sup>1</sup>Faculty of Nursing and Health Sciences, University of Muhammadiyah Banjarmasin, 70115, Indonesia

\*E-mail: [dsp@umbjm.ac.id](mailto:dsp@umbjm.ac.id)

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### ABSTRACT

**Background:** Interaction between people is facilitated by communication. The self-concept might take on a positive or negative form. Generation Z possesses distinct characteristics compared to other contemporary generations. There are differences between generations in both how they spend their money and the social system they grew up in. **Objective:** to investigate the possible relationship between generation z nursing students' interpersonal communication skills and their self-concept. **Methods:** A cross-sectional approach to correlation analysis was used in the research technique. The instruments were questionnaires and observations. The research sample consisted of 70 seventh-semester pre-professional nursing students from Banjarmasin, selected using a total sampling technique. The Spearman Rank Correlation test was utilized in this investigation. **Results:** indicated that 95.7% of students exhibited a good self-concept, whereas 78.6% of students had intermediate levels of interpersonal communication abilities. The statistical test results showed a significant link ( $p$   $0.002 < \alpha$   $0.05$ ) between nursing students' self-concept and their interpersonal communication skills. **Conclusion:** Students have a positive self-concept, but clinical practice experience and social media influence their interpersonal communication skills.

### INTRODUCTION

Currently, the habits of nursing students from Generation Z (Gen Z) are different from students from previous generations in several ways. They really like technology, like to work in their own way, don't like being managed by others but sometimes need a lot of advice, and sometimes they feel nervous. To retain

Gen Z nursing students in the clinical environment, it is important to develop strategies to increase their satisfaction (DiMattio & Hudacek, 2020). Because they grew up constantly online and becoming adults while the world was in the middle of a pandemic, Gen Z often has very different views on how much they use social media.

For the younger generation, social media is the main source of information. Gen Z is becoming increasingly dependent on cellphones and other gadgets. The result is that their behavior changes completely. Experts worry about how much information may be causing mental health problems in Gen Z (Sharma et al., 2023).

There are concerns that social media addiction can lead to serious social problems. Data shows that peer pressure is a strong predictor of teens' addiction to social media. However, for young adult with better self-esteem, peer pressure and social media have less influence on them. This is because they are better able to withstand social pressure (Xu et al., 2023).

Generation X (Gen X) (born 1965–1988) and Generation Y (Millennials) (born 1981–1996) were similar to each other in communication types and different from Gen Z (born 1997–2012) (So Hee & Yeojin, 2023). Social media is an important part of Gen Z's life. Gen Z considers digital communication via instant messaging to be normal. Therefore, this greatly influences the way they interact directly with their environment. Interpersonal communication refers to the exchange of information and emotions between individuals or small groups through face-to-face interactions. This type of communication can occur in both verbal and non-verbal forms, allowing for a two-way flow of communication. As we know.

Communication is the foundation of the nurse-patient relationship and is key to building trust and comfort during care. Although very complex communication strategies are applied in clinical conditions (Afriyie, 2020a). Previous research suggests that nursing students' interpersonal communication develops from experience. In the clinical environment they learn to interact with various patient conditions and train patients to manage emotions (Crawford et al., 2020)

Interpersonal communication skills should be applied when prospective nurses are in the clinical learning phase. Self-concept plays a role in building a person's interpersonal communication skills (Habibi et al., 2023; Ulfa et al., 2022). Therefore, the research aims to determine the correlation between the self-concept and interpersonal communication skills of nursing students. From the given explanation, it might be inferred that there exists a connection between self-concept and interpersonal communication skills.

## **METHODS AND MATERIALS**

The research methodology used correlation analysis, utilizing a cross-sectional approach. The population are the final-year nursing students at the University of Muhammadiyah Banjarmasin.

The inclusion criteria of this study were carried out during the period when the participants were engaged in pre-clinical practice in nursing management at the hospital, specifically in May 2023.

The inclusion criteria in this study were undergraduate nursing students in the 7th semester who did pre-clinical nursing management at the hospital, while the exclusion criteria were nursing students who had not finished that program. The sample consisted of 70 students selected using a total sampling technique. Data was collected in May 2023.

The research tool used is a self-concept questionnaire that covers many aspects of self-concept, including body image, self-ideal, self-esteem, role, and identity. This questionnaire was adopted by other research; the research was to determine the description of the self-concept that appears in senior high school students (Santika, 2022). However, this instrument was revalidation and reevaluation because it was to ensure compatibility between the characteristics of college students at the university. There are 35 questions, and the validity test showed the value of  $r$  count in the range 0.370 – 0.692 which is greater than  $r$  table, which is 0.361. The reliability test showed the value of Cronbach Alpha was 0.892, greater than 0.70.

A self-concept assessment was given to students via an online survey. The

interpersonal communication observation sheet is composed of the following elements: respect, empathy, audibility, clarity, and humility, which can be abbreviated as REACH. This observation question was adopted by previous study, that study was to analyze the effect of REACH communication and the caring behavior of nurses toward patients (Martianawati et al., 2022). Clinical supervisors at hospitals have the responsibility of observing and evaluating interpersonal communication skills.

The statistical analysis used the Spearman Rank test, utilizing a confidence level of 95% or a significance criteria of  $\alpha$  0,05. Ethical approval has been received from the ethics commission of the University of Muhammadiyah Banjarmasin. Registration number is 416/UMB/KE/VI/2023.

## **RESULTS AND DISCUSSION**

### **Univariate Analysis Results**

This study found 70 nursing students as respondents. The age characteristics of respondent were from 20 to 23 years old. The sample were undergraduate nursing students in Banjarmasin who are in their 7<sup>th</sup> semester because this is the last pre-clinical stage in the undergraduate program before they start the professional nursing practice program.

Univariate analysis in this study describes the frequency distribution of the

two variables: self-concept as an independent variable and interpersonal communication as a dependent variable.

The results of the self-concept variable are divided into 2 categories (negative and positive), which are presented in the table below:

**Table 1. Self-Concept Category Frequency Distribution**

Self-Concept Category	Frequency	Percentage
Negative	3	4,3
Positive	67	95,7
Total	70	100

The results of the univariate analysis indicated that 95,7% of students in the self-concept category had a positive self-concept. Nevertheless, it has been found that a small proportion of nursing students, which is 4,3%, still have a negative view of themselves.

**Table 2. Self-Concept Parameters Percentage Distribution**

Self-Concept Parameters	Percentage
Body-image	18,97
Ideal self	21,70
Self-esteem	18,47
Role	20,29
Identity	20,57
Total	100

The frequency distribution chart indicates that the self-esteem parameter has the smallest proportion, at 18,47%, followed by body-image parameter (18,97%) while the biggest proportion is attributed to the ideal-self parameter, at 21,70%.

Based on the self-concept parameters, this study found that the percentage distribution of five of the self-concept's aspects is: body image (18.97%),

self-ideal (21.70%), self-esteem (18.47%), role (20.29%), and identity (20.57%).

The results of the interpersonal communication variable are divided into 3 categories (poor, sufficient, and good), which are presented in the table below:

**Table 3. Interpersonal Communication Category Frequency Distribution**

Interpersonal Communication Category	Frequency	Percentage
Poor	2	2,9
Sufficient	55	78,6
Good	13	18,6
Total	70	100

In the interpersonal communication category, 78,6% of nursing students exhibited sufficient interpersonal communication abilities. However, only 18,6% of nursing students possessed good interpersonal communication skills.

**Table 4. Interpersonal Communication Parameters Percentage Distribution**

Interpersonal Communication Parameters	Percentage
Respect	21,99
Empathy	16,77
Audible	24,10
Clarity	21,35
Humble	15,80
Total	100

According to the interpersonal communication parameters percentage distribution above, the largest proportion on the interpersonal communication parameter is audible (24,10%), and the lowest is humble (15,80%).

Based on the interpersonal communication parameters, this study found that the percentage distribution of REACH aspects is: respect (21,99%), empathy (16,77%), audibility (24,10%), clarity (21,35%), and humility (15,80%).

## Bivariate Analysis Results

Based on the results of hypothesis by Spearman Rank test correlation, the p-value was  $<0,05$ . This result gives the conclusion that  $H_0$  was accepted, which means that there is a relationship between self-concept and interpersonal communication of nursing students.

**Tabel 5. Cross Tabulation of Self-Concept and Interpersonal Communication**

		Interpersonal Communication			Total	
		Poor	Sufficient	Good		
Self-Concept	Negative	N	2	1	0	3
		%	66,7	33,3	0	100
	Positive	N	0	54	13	67
		%	0	80,6	19,4	100
Total	N	2	55	13	70	
	%	2,9	78,6	18,6	100	

It is clear from the cross-tabulation analysis results that most nursing students (80,6%) with a positive self-concept have sufficient interpersonal communication skills.

**Table 6. Spearman Rank Correlation Test**

Variable	Frequency	Correlation Coefficient	$\rho$ Value
Self-Concept	2	0,360	0,002
Interpersonal Communication	55	0,360	

The Spearman-Rho correlation test revealed a positive association between interpersonal communication and self-concept. 0,360 is the correlation coefficient, indicating a moderate correlation. Therefore, it can be said that there is a moderately positive link between interpersonal communication and self-concept, with greater interpersonal communication being associated with a higher self-concept.

The strength of the correlation between the two variables under investigation also determines its significance. A correlation is deemed to be statistically significant when the 2-tailed significance (sig) value is below 0.05. On the other hand, the correlation is considered to have no significance when the sig (2-tailed) value is greater than that range. In other words, the  $\rho$  value determines the acceptable level for variable correlation. If  $\rho < \alpha 0,05$ , then  $H_0$  gets rejected and  $H_a$  is approved, implying that there is a correlation between the variables.

The study revealed a correlation ( $\rho 0,002 < \alpha 0,05$ ) between self-concept and interpersonal communication among nursing students from Generation Z during their pre-professional nursing practice.

## Discussion

The research was carried out when students performed nursing management stage in pre-clinical practice at the hospital. At this time students apply their communication skills not only when performing nursing procedures on direct patients but also when interacting with co-workers, including hospital nurses, members of other health teams, and other practical students. From a nursing perspective, it is also called interprofessional collaboration (IPC) or interprofessional education (IPE). The

implementation of IPC and IPE is very important as provisions for the student as a leader in the future (Gaghauna, 2021). Even effective IPC/IPE between healthcare professionals enhances teamwork and improves patient care and patient safety (Bok et al., 2020; Morgan et al., 2020).

The result of the univariate analysis shows that the majority of nursing students' self-concept is in the positive category. Based on the age distribution, 7<sup>th</sup> semester nursing students ranged in age from 20 to 23 years. Every student is in the young adulthood. By the time they are young adults, they have started to plan their lives to become stable. Also, by improving professional self-concept in nursing can offer specific gains in personal, relational, social, and interpersonal communication skills, favoring evolution in the academic and clinical path (Almeida et al., 2023). It is also mentioning that high professional self-concept positively impacts the acceptance and demand for evidence-based practice in nursing (Asi Karakas et al., 2021).

A small number of students have a negative self-concept, according to the findings of the univariate analysis of self-concept. This shows that even though young adulthood is more stable. However, the demand for high achievement from both educational institutions and parents will cause students adolescents' problem behavior. Sometimes students are also

unable to determine their main focus or form a positive self-concept. Academic self-concept does not have a direct effect on academic achievement but is a predictor of academic self-esteem (Basith et al., 2021). Adolescent issue behavior is directly positively impacted by academic pressure. Adolescent problem behavior and academic pressure are directly caused by parent-child conflict and self-control (Jiang et al., 2022). Therefore, psychological resilience is an important mediating mechanism through which self-concept is associated with negative emotions among college students (Zhang et al., 2022).

Personality evolves throughout life, with the majority of growth happening throughout the teenage years and early adulthood. Life changes to different social roles may play a significant impact in shaping the overall development of personality traits (de Moor et al., 2023). Entering young adulthood requires determining responsibilities, achieving stability in work, and establishing more intimate relationships. In young adulthood, students should have a stable self-concept in order to achieve good academic achievement. Schools can offer psychological education to teenagers and promote or cultivate their character strengths. Parents should pay attention to controlling their emotions, reduce the frequency of parent-child conflicts, and create a harmonious family relationship.

Adolescents need to focus on developing self-control (Jiang et al., 2022).

Young people reported above the average point of the scale on personality traits and self-concept clarity. It's indicating that they generally reported favorable levels of personality development (de Moor et al., 2023). Most people like themselves. People who live according to their standards and expectations will have a high sense of self-esteem. Nursing students who have a positive self-assessment and consider weaknesses in their assessment are positioned as evaluators of themselves, whether they conflict with individual expectations or standards.

Nowadays, young adults portray themselves easily by using social media. Body image literature by showing a deeper comprehension of how social media affects the desire to change one's self-image to conform to societal standards that are highly demanding (Young et al., 2022).

The highest percentage in the self-concept aspect is in the ideal self parameter at 21.70%. Humans usually form their ideal selves based on cultural factors, their work environment, and the personal values they believe in. A high ideal self, or what is often called perfectionism, makes a person ambitious about their ideals and hopes. Perfectionism is a cause of low self-esteem because a person will feel more disappointed when

they are unable to achieve their goals or expectations optimally.

The lowest percentage in the self-concept aspect is in the self-esteem component, followed by body-image parameter. Meanwhile the biggest proportion is attributed to the ideal-self parameter, at 21,70%. These finding related to some studies. The influence of continuous use of social media regarding the ideal body image will have an impact on the eating patterns of teenagers aged 18–30 years (Rounsefell et al., 2020). Instagram is one of the social media sites that is associated with a decline in teenagers' body image. This is shown by the many photos of teenagers with drastic weight loss (Jebeile et al., 2021). This causes feelings of discomfort and always makes them blame themselves. Negative feelings that arise from within oneself due to not being liked by many people. In the end, a feeling of low self-esteem and the presence of loneliness emerge (Pop et al., 2022).

On the other hand, nursing students must have high self-esteem because this will determine coping strategies for stressors faced during clinical practice, affect critical thinking abilities and anxiety levels. Low self-esteem can be caused by assignments not being completed on time, and a lack of responsibility in completing assignments given by lecturers (Siallagan et al., 2021).

High levels of anxiety and low coping skills lead to poor interpersonal communication skills in health care teams. Short-sighted or impulsive social media posts may have long-term effects on a nurse's career (Allen, 2021). A positive self-concept does not mean being proud of yourself, but rather means accepting yourself as you are, both your strengths and weaknesses, so that you can accept yourself and others. A negative self-concept can give rise to self-doubt so that a person feels unable to achieve anything worthwhile in his life.

The results of the univariate analysis of interpersonal communication show that the majority of nurses' interpersonal communication is in the sufficient category. Only a few are in the good category. This condition can be caused by interpersonal communication anxiety. During interpersonal communication, students often fear that the other person will criticize their weaknesses and faults. They also worry about making mistakes in communication, which leads to negative emotions and behaviors like nervousness, excessive anxiety, and avoiding communication. These reactions ultimately impact their interactions with others and their overall ability to communicate effectively (Ma & Lin, 2022). Gen Z difficult to communicate directly and instantly. This condition is because Gen Z

tends to be comfortable with internet-based communication (Yunus, 2021).

Students' anxiety occurs when patients ask about their condition, which students may not be able to answer because of their limited knowledge. Anxiety may occur if the wrong information is given to patients. This will make students hesitant and embarrassed to communicate with patients. Students felt that a lack of practical experience would have a direct impact on their interpersonal communication skills. An unfamiliar clinic environment will also hinder the communication process.

On the other hand, the most common healthcare collaboration practice in hospitals involves the interaction between nurses and doctors. This situation could be a challenge for nursing students who have not yet been familiar with interprofessional collaboration (Paramitha et al., 2022). Therefore, students need to adapt as much as possible.

If 7th semester nursing students are compared with professional nurses, they will certainly have different experiences. Since nursing students enter the pre-professional nursing practice phase, they have been taught the professional values of nursing. We need to pay more attention to nursing students because individual determinants, experience, nurses' values perceptions, and the impact of role models



are factors affecting nurses' professional values (Gassas & Salem, 2022).

Based on the results of hypothesis testing with Spearman Rank correlation, it is known that self-control and interpersonal communication are positively correlated. This data shows that a positive self-concept can have an impact on good interpersonal communication. Self-concept is not an innate factor from birth, but develops through continuous experiences throughout life. Personality traits change in the direction of greater maturity (Bleidorn et al., 2021).

Students have different self-concepts, because each person has a different environment and life experience. The pre-nursing stage that students are currently going through is one of the learning experiences that must be passed so that in the future interpersonal communication skills will become better and more effective. There are five laws of interpersonal communication that are said to be effective, namely Respect, Empathy, Audible, Clarity, and Humble or often abbreviated as REACH which means achieving (Putri Ryandini et al., 2022)

The nurse's interpersonal communication includes the nurse's friendly attitude during conversations, the use of polite language, and the nurse's ability to explain information without causing any difficulties. Additionally, the nurse consistently inquires about patient

complaints, provides explanations during medication administration, and communicates effectively during other nursing actions.

Current family, cultural, socio-economic and environmental backgrounds have an influence on nursing students' self-concept. Previously formed self-concepts, previous experiences interacting and communicating with the environment also influence differences in communication patterns and the quality of interpersonal communication.

Gen Z as social beings need other people so they need the ability to communicate interpersonal. Failure to carry out interpersonal communication makes it difficult for teenagers to have broader conversations. One way to improve interpersonal communication is self-concept (Simbolon & Simbolon, 2023).

A positive self-concept tends to behave objectively, respect other people's opinions, realize that each person has different feelings and desires from each other so that with the same position, interpersonal communication will be better.

On the other hand, if the self-concept is negative, miscommunication will occur because the information received and perceived may be wrong, thus hurting interpersonal communication. Negative self-concepts, such as sensitivity to

criticism, will result in a person becoming irritable. As a result, interpersonal communication will be hampered.

Currently, the support needed for Gen Z nurses is training the mind not to be easily unfazed, doing therapeutic communication skills, assertive skills, managing emotions, and arguing persuasively (Y. J. Lee et al., 2023). Therefore, nursing colleges need to improve their students' communication skills. A curriculum that equips students with communication skills needs to be implemented using appropriate learning methods. Learning using a case method approach will provide an overview of conditions in the clinic. Making practical methods in the laboratory more effective by presenting patient simulations will also improve students' critical thinking (Susanto et al., 2023).

For newly graduated nurses, if they work in a practice environment, they will occupy a position as an associate nurse. Associate nurses are nurses who carry out nursing actions directly on patients, such as measuring vital signs, assisting with feeding, giving and changing positions and so on. In nursing actions, communication is an important tool in building relationships and can influence the quality of nursing services. So further communication is very necessary because it can influence the level of patient

satisfaction with the health services provided.

Educational strategies that take the traits of Gen Z, as well as many best practices of learning science, can be implemented to support the formation of nursing identity. Reflection, narratives, and stories, as well as experiential learning such as simulation and clinical, are safe and effective ways to build professional skills. (Allen, 2021). A study of learning methods using Practical Kinesiology revealed that students really like hands-on practice. The method is a combination of flipped classes, digital applications, and patient simulations (Segev-Raz & Ferziger, 2023). The use of virtual reality simulations is the most effective in improving nursing students' cognitive outcomes in learning (Shorey & Ng, 2021). A study's findings also suggest that mostly students with a low level of academic self-concept benefit from competency-based learning (Kulakow, 2020). However, readiness for pre-professional nursing practice depends on the learning methods.

A nursing preceptor is required to have high interpersonal communication skills. This is because they have the responsibility to build these skills in nursing students in the clinical area. They are also responsible for creating a comfortable and safe clinical practice environment and providing positive feedback (Hardie et al., 2022). Pre-

professional nursing practice teaches students to improve prospective nurses' interpersonal communication skills and sense of empathy for patients. It also prompts thoughts on how nursing student education is addressing and enhancing interpersonal communication skills. A study mention that training is required to effectively express Millennial and Z-generation nurse opinions to appropriately handle various situations and negative situations during interactions between staff, patients, and guardians without feeling tense (Lee et al., 2023b).

There may have been some bias in the study results. These should be taken as a study limitation when considering these results. Several limitations exist in this study. First, this study not considering preceptor's work experience. The lack of training for preceptors could affect their ability to teach nurse students and could have a negative effect on these nurses' socialization in the clinical environment (Hong & Yoon, 2021). There is also the revelation that preceptors with more years of post-registration experience are less confident in their preceptorship role performance (Mhango et al., 2021). On the other hand, a significant challenge was also reported including preceptors experienced high levels of exhaustion from the dual responsibilities of training new nurse while also performing their regular care duties (Varghese et al., 2023).

Therefore, it is necessary to review the current status of nurse preceptor.

Second, we acknowledge that our perspectives may be limited because we did not consider the patient's perspective. As we know, communication can be considered the basis of the nurse-patient relationship and is an essential element in building trust and comfort in nursing care (Afriyie, 2020b). Patient perspectives can show their perceptions of their experiences (Waweru et al., 2020). The inclusion of patients in this study would have enriched our views on interpersonal relationships. Moreover, findings from one geographical location may not be replicable.

## **CONCLUSIONS AND SUGGESTIONS**

The research concludes that there is a moderately positive relationship between self-concept and interpersonal communication. The higher the self-concept of nursing students, the greater their contribution to good interpersonal communication. This moderate positive correlation is because most of the positive self-concept in nursing students is correlated with adequate interpersonal communication. Only a small number of nursing students have interpersonal communication in the good category. These results indicate that other possible factors influence a student's interpersonal communication skills besides self-concept. So that future researchers can conduct

other research to examine other factors that can be related to nursing student interpersonal communication.

This research can serve as valuable information for institutions that offer higher education in nursing, as it can help find strategies to enhance students' interpersonal communication abilities. Adapting learning approaches to be more participatory, taking into account the unique traits of Gen Z. It is also possible to enhance students' analytical skills by utilizing the case-based learning method. By doing this approach, students will be given real cases, enabling them to develop the required abilities for effective communication during their hospital practice.

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