

# HOPELESSNESS AMONG NURSING STUDENTS DURING THE EARLY PHASE OF COVID-19 PANDEMIC : ONLINE CROSS SECTIONAL STUDY AT UNIVERSITAS RESPATI YOGYAKARTA

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## Abstract

Global pandemic of COVID-19 caused unprecedented effect in education sector due to the university closure and distance education, which could significantly affected students mental health and increased suicidality. Nursing students are vulnerable population due to already stressful academic activities coupled with pandemic loneliness and financial difficulties. Hopelessness, a negative view of the self in relation to the world and the future, identified as consistent predictor of suicidality. This study aimed to explore the prevalence of hopelessness among nursing students and association between sociodemographic characteristic and hopelessness. Online cross sectional study was conducted in Universitas Respati Yogyakarta between June until September 2020, and involved 232 nursing students that selected using consecutive sampling method. Sociodemographic questionnaire and Beck Hopelessness Scale (BHS) were used to collect the data. Chi square test was used to analyze association between sociodemographic characteristic and hopelessness. Our study elucidated that the prevalence of hopelessness among nursing students at Universitas Respati Yogyakarta during the early phase of COVID-19 pandemic is 9.5%. Chi square test revealed that there is no significant association between any sociodemographic characteristic and hopelessness ( $p > 0.05$ ). The prevalence of hopelessness among nursing students is low, and sociodemographic profiles is not determinant of hopelessness.

**Keywords:** Hopelessness, Prevalence, Nursing Students, COVID-19

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## 1. Introduction

In December 2019, the outbreak of severe pneumonia cases with unknown etiology emerged at Wuhan, the city at Hubai Province, China (Ren et.al, 2020; Rabi et.al, 2020). Subsequent research discovered that these severe pneumonia in human was caused by the infection of novel human coronavirus (2019-nCoV). Sequencing analysis revealed the highly similarity between the genomic RNA sequence of 2019-nCoV with genomic RNA sequence of SARS-CoV that causing Severe Acute Respiratory Syndrome (SARS). Novel human

coronavirus 2019 was renamed as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) (Rabi et.al, 2020; Zhou et.al, 2020; Gorbalenya et.al, 2020) and characterized as highly contagious enveloped positive single strand RNA virus with multiple routes of transmission. SARS-CoV-2 infection in human causes the Coronavirus Disease-2019 (COVID-19), which has a broad spectrum of clinical manifestations ranging from asymptomatic to fatal condition. Spreading rapidly to more than 200 countries and causing high mortality, COVID-19 was declared as

global pandemic on March 11, 2020 (Hakim et.al, 2021; Cucinotta and Vaneli, 2020).

COVID-19 pandemic caused unprecedented effect on every aspect of human life. The restriction policy such as lockdown, quarantine, travel ban, and social distancing significantly disrupt business and employment sectors. In education sector, the university closure and fully online learning implementation fundamentally changed the students' everyday lives (Holzer et.al, 2021). The lockdown policy caused the students to stay at their home for long periods of time. When combined with online learning, the students are prone to a series of emotional stress responses. Moreover, it is well documented that students in developing country facing substantial difficulties in conducting online learning (Achmad et.al, 2021; Baticulon et.al, 2021) and online learning is cited as one of the most serious issues among students during the COVID-19 pandemic (Al-Tammemi et.al, 2020). During online learning, lack of adequate support from teachers and lack of adequate assistance to solve technical difficulties often experienced by students, making them to solve these barriers and to motivate themselves.

Nursing students are a vulnerable population in this unprecedented time. Numerous study demonstrated that nursing students are experiencing tremendous and prolonged stress during their education process and they had mental health issues at higher rates than the non-healthcare students and general population (Karaca et.al, 2019; Sakai et.al, 2022). Compared to non health sciences students, the nursing students must experienced stressful course schedules and examinations. As a result, nursing students must deal and adapt with the high level of academic stressors beside facing the same difficulties and stressors as general university students (Sakai et.al, 2022). The high academic burden coupled with social isolation, financia problem ,and online learning problem during the pandemic could negatively affect students mental health.

Hopelessness is an important psychological construct, defined as negative expectations regarding oneself and one's future life and a negative emotional state characterized by the lack of finding a solution for one's problems (Balsamo et.al, 2020; Yip dan Cheung, 2006). It is a cognitive feature of negative view of the self, and of the self in relation to the world and in relation to the future. The negative effects of loneliness on mental health are well documented, In particular, accumulation of evidence demonstrated that hopelessness among the strongest risk factor for engaging in suicidal behaviors (Tin et.al, 2015). Thus far in Indonesia, there is no published study exploring the prevalence of hopelessness among

nursing students in Indonesia in the midst of the COVID-19 pandemic, and the association between sociodemographic characteristic and hopelessness in the context of the pandemic situation. Born from the lack of evidence on these topics, our present study aimed to explore the prevalence of hopelessness and the association between sociodemographic characteristic and hopelessness among nursing students in Indonesia during the COVID-19 pandemic. Addressing these gaps in the literature are essential to increase our understanding regarding the extent of the problem among this vulnerable population. Since hopelessness also identified among the strongest determinant of suicidality, the scientific information regarding hopelessness also could be used as a basis to develop appropriate suicide prevention strategies.

## 2. Methods

### Study Design

We conducted observational study with cross sectional design and data collected via online questionnaire using Google Form.

### Study Setting and Period

We conducted this study from June until September 2020 at School of Nursing, Universitas Respati Yogyakarta.

### Sample Size Calculation and Sampling Technique

The population of this study were undergraduate nursing students at the School of Nursing Universitas Respati Yogyakarta. Minimum sample size required in this study is 225 which were obtained using Slovin Formula. Study participants were taken by consecutive sampling. The inclusion criteria in this study were: undergraduate nursing students, academically active student status during the data collection period, academic level of 1<sup>st</sup> semester 1 to 8<sup>th</sup> semester, had an active Whatsapp number that can be contacted, and willing to participate in this study. Exclusion criteria in this study were: Cannot be contacted via Whatsapp, did not fill out informed consent, did not fill out the research questionnaire completely. Data regarding the identity of nursing students, active or leave status in the academic process, academic level, and Whatsapp number were obtained from the academic section of the university. This data is then used to determine nursing students who meet the inclusion criteria. We contacted each nursing student who met the inclusion criteria via Whatsapp calls to explain the research information and inquire about their willingness to participate in the study. Students who are willing to volunteer to be involved in this research can open the Google Form link to obtain informed consent which must be filled out by students as a prerequisite for

continuing participation. If the student has filled out the informed consent, we will send a Google form link containing the research questionnaire to be filled out by the respondent.

#### Instrument

The instrument used in this study consisted of Sociodemographic questionnaire and Beck Hopelessness Scale (BHS). Questionnaire regarding sociodemographic characteristics consisted of seven questions about gender, age, monthly family income, academic level, place living during lockdown, financial difficulties during the pandemic, and satisfaction with GPA (grade point average).

The Beck Hopelessness Scale (BHS) was used to assess hopelessness among nursing students. BHS instrument was used to assess the level of pessimism about the future in adults and adolescents (Tin et.al, 2015). The BHS consists of 20 question items to measure 3 main aspects of hopelessness: feelings about the future, loss of motivation, and expectations. Each question item has a dichotomous answer: true/false. The total score is obtained by reverse the coding of 9 items (items 1, 3, 5, 6, 8, 10, 13, 15, 19) and then summing the scores to the 20 items. The total BHS score ranges from 0-20 and the higher the score indicates greater hopelessness (Balsamo et.al, 2020). The cut-off point of 9 was used to defined hopelessness, so a total BHS score  $\geq 9$  was considered as “hopeless” (Tin et.al, 2015). Indonesian version of BHS is a valid instrument and has Cronbach’s  $\alpha = 0.918$ , suggesting high-internal reliability (Hutajulu et.al, 2021).

#### Ethical consideration

The Health Research Ethics Committee, Universitas Respati Yogyakarta, Indonesia giving the ethical clearance for this study with ethical number: 159.3 / FIKES / PL / X / 2022). Informed consent was obtained from each participant before data collection. The confidentiality of all the information obtained from the participants were assured throughout the study.

#### Statistical Analysis

For univariate analysis, we employed frequency and percentage. The association between sociodemographic characteristic and hopelessness among nursing students were assessed using Chi Square test and p value less than 0.05 considered as statistically significant. All the analyses were performed using the SPSS v.24 (IBM Corp, Armonk, NY).

### 3. Results

#### Sociodemographic Characteristic of The Study Participants

**Table 1.** Sociodemographic characteristic of the study participants (n=232)

Characteristics	Frequency (n)	Percentage (%)
<b>Age (years) - Mean (SD)</b>	19.4 (1.69)	
<b>Sex</b>		
Male	35	15.1
Female	197	84.9
<b>Monthly income of the family (Indonesian Rupiah/IDR)</b>		
Under 1 million	64	27.6
1 million–2 million	60	25.9
2 million–3 million	44	19.0
3 million–4 million	24	10.3
4 million–5 million	19	8.2
Above 5 million	21	9.1
<b>Academic level</b>		
First year	149	64.2
Second year	19	9.2
Third year	23	9.9
Fourth year	41	17.7
<b>Place living during lockdown</b>		
At home	215	92.7
At other place	17	7.3
<b>Financial difficulties during the COVID-19 pandemic</b>		
No	51	22.0
Yes	181	78.0
<b>Satisfaction with academic performance</b>		
Satisfied	103	44.4
Dissatisfied	129	55.6

#### Prevalence of Hopelessness Among Nursing Students

In this study, we assessed the hopelessness among nursing students using Beck Hopelessness Scale (BHS), and BHS total score  $\geq 9$  were considered as hopeless. Table 2 showed the detailed information about hopelessness among nursing students based on BHS. Our study found that only 22 nursing students (9.5%) experiencing hopelessness.

**Table 2.** Hopelessness among nursing students (n=232)

Hopelessness Status	Total Range	BHS Score	Frequency (n)	Percentage (%)
No		0-8	210	90.5
Hopeless		9-20	22	9.5

**Table 3.** Chi square test assessing the association between sociodemographic variables and hopelessness

Variables	Hopelessness		p	OR	95% CI
	No	Yes			
	N(%)	N(%)			
<b>Age</b>					
≥ 20 years	88	13	0.122	0.499	0.204-1.220
< 20 years	122	9			
<b>Sex</b>					
Male	30	5	0.293	0.567	0.194-1.651
Female	180	17			
<b>Academic Level</b>					
Second, third, and fourth year	73	10	0.320	0.639	0.264-1.551
First year	137	12			
<b>Monthly Family Income</b>					
≥ 1 million IDR	152	16	0.972	0.983	0.367-2.634
< 1 million IDR	58	6			
<b>Financial Difficulties</b>					
No	46	5	0.926	0.954	0.334-2.724
Yes	164	17			
<b>Satisfaction with Academic</b>					
Satisfied	93	10	0.916	0.814	0.395-2.305
Dissatisfied	117	12			

#### Association Between Sociodemographic Characteristic and Hopelessness Among Nursing Students

We employed Chi Square test to examine the association between sociodemographic variables and hopelessness and the result were showed at table 3. Our study found that there is no statistically significant association between any of sociodemographic characteristic and hopelessness among nursing students.

#### 4. Discussion

Our current study elucidated that 9.5% of nursing students had hopelessness. This is suggesting that the prevalence of hopelessness among nursing students at Universitas Respati Yogyakarta during the early phase of COVID-19 pandemic is low. Hopelessness is an important psychological construct, defined as negative expectations regarding oneself and one's future life and a negative emotional state characterized by the lack of finding a solution for one's problems (Balsamo et.al, 2020; Yip dan Cheung, 2006). It is a cognitive feature of negative view of the self, and of the self in relation to the world and in relation to the future. The negative effects of loneliness on mental health are well documented, In particular, accumulation of evidence demonstrated that hopelessness among the strongest risk factor for engaging in suicidal behaviors. Extensive study

found that hopelessness positively associated with suicidal ideation among different population (Wolfe et.al, 2019; Baryshnikov et.al, 2020; Chang et.al, 2017; Hossein Sadeghian et.al, 2021; Tin et.al, 2015). Individual with hopelessness possess negative emotional state characterized by the inability to finding a solution for their problem and they perceived suicide as the only way out of their "unsolvable problems (Huen et.al, 2015). Since our study find that the prevalence of hopelessness among nursing students low, we suggested to explore the other risk factor of suicidality among nursing students. The identification of determinant both protecting factor and risk factor for suicide behavior is imperative to increased our understanding regarding the reason of committing suicide and to design appropriate suicide preventive strategy.

In this study, we also attempted to explore the possible association between demographic variables and hopelessness among nursing students. However, our finding suggest that there is no statistically significant associations between any of the soicodemographic characteristic and hopelessness. The statistically insignificant results obtained in relation to the chi-square tests may be attributable to the sample size of this study and the low prevalence of hopelessness found in this study. In our study the proportion hopelessness is to small and results in relatively wide spread of sparse data.

Widely spread sparse data lead to insignificant (or extremely significant) chi-square results (Greenland et al., 2016; McHugh, 2013). Future studies may consider obtaining a relatively larger sample of participants to partly avoid the problem of sparse data.

However, our recent study had various limitations. First, the cross-sectional design used in this study means that our study cannot demonstrate any causal relationship. Second, our study employed non-probability sampling to recruit the participants which limit the generalizability of the results. Third, we used the self-administered questionnaire which could result in social desirability bias wherein respondent tend to choose more socially accepted answer. Fourth, the data were collected using online platform since the data were collected during the early phase of COVID-19 pandemic in Indonesia, and social restriction were extensively implemented. Despite these numerous limitations, our study elucidated that prevalence of hopelessness among nursing students is low and no association between sociodemographic profiles and hopelessness.

## 5. Conclusion

The prevalence of hopelessness among nursing students at Universitas Respati Yogyakarta during the early phase of COVID-19 pandemic is low. Moreover, there is no significant associations between any of the sociodemographic characteristic and hopelessness. Future studies that explore hopelessness may consider obtaining a relatively larger sample of participants. Since our study only assess hopelessness in the early phase of pandemic, longitudinal study to assess hopelessness were also needed to explore change in hopelessness over the time. We also suggested to explore other determinant of hopelessness and suicidality among nursing students in the future.

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## Conflict of Interest

The authors declare that they have no conflict of interests.

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## 6. Reference

- Tin, TS., et.al. (2014). Prevalence and Predictors of Suicidality Among Medical Students in A Public University. *Med J Malaysia Vol 70 No 1 February 2015*; pages 1-5
- Hutajulu, MJJ., Djunaidi, A., Triwahyuni, A. (2021). Properti Psikometri Beck Hopelessness Scale pada Populasi Non-Klinis Indonesia. *INTUISI JURNAL PSIKOLOGI ILMIAH*, Vol 13, No 1 (2021) : 24-37. DOI: 10.15294/intuisi.v13i1.28037
- Greenland, S. , Mansournia, M. A. , & Altman, D. G. (2016). Sparse data bias: A problem hiding in plain sight. *BMJ*, 352, i1981 10.1136/bmj.i1981
- McHugh, M. L. (2013). The chi-square test of independence. *Biochemia Medica*, 23(2), 143–149. 10.11613/BM.2013.018
- Yip PS, Cheung YB. Quick assessment of hopelessness: a cross-sectional study. *J Health Qual Life Outc* (2006) 4(1):13. doi: 10.1186/1477-7525-4-13
- Balsamo M, Carlucci L, Innamorati M, Lester D and Pompili M (2020) Further Insights Into the Beck Hopelessness Scale (BHS): Unidimensionality Among Psychiatric Inpatients. *Front. Psychiatry* 11:727. doi: 10.3389/fpsy.2020.00727
- Holzer J, Korlat S, Haider C, Mayerhofer M, Pelikan E, Schober B, et al. Adolescent well-being and learning in times of COVID-19-A multi-country study of basic psychological need satisfaction, learning behavior, and the mediating roles of positive emotion and intrinsic motivation. *PLoS One*. 2021;16(5 May 2021):1–22.
- Saddik B, Hussein A, Sharif-Askari FS, Kheder W, Temsah MH, Koutaich RA, et al. Increased levels of anxiety among medical and non-medical university students during the COVID-19 pandemic in the United Arab Emirates. *Risk Manag Healthc Policy*. 2020;13:2395–406.
- Al-Tammemi AB, Akour A, Alfalah L. Is it just about physical health? An online cross-sectional study exploring the psychological distress among university students in Jordan in the midst of COVID-19 pandemic. *Front Psychol*. 2020;11(November):1–11.
- Baticulon RE, Sy JJ, Alberto NRI, Baron MBC, Mabulay REC, Rizada LGT, et al. Barriers to online learning in the time of COVID-19: a national survey of medical students in the Philippines. *Med Sci Educ*. 2021;31(2):615–26.
- Achmad BF, Fitriawan AS, Kurniawan D, Kafil RF, Retnaningsih LN. Perceived barriers in

- online learning among nursing students during the COVID-19 pandemic in Indonesia. *Open Access Maced J Med Sci*. 2021;9:203–10.
- Sakai M, Nakanishi M, Yu Z, Takagi G, Toshi K, Wakashima K, et al. Depression and anxiety among nursing students during the COVID-19 pandemic in Tohoku region, Japan: a cross-sectional survey. *Japan Journal of Nursing Science*. 2022 Jul 1;19(3):1-9.
- Karaca A, Yildirim N, Cangur S, Acikgoz F, Akkus D. Relationship between mental health of nursing students and coping, self-esteem and social support. *Nurse Educ Today*. 2019;76:44–50.
- Ren LL, Wang YM, Wu ZQ, Xiang ZC, Guo L, Xu T, et al. Identification of a novel coronavirus causing severe pneumonia in human: a descriptive study. *Chin Med J (Engl)*. 2020;133(9):1015–24.
- Hakim MS. SARS-CoV-2, Covid-19, and the debunking of conspiracy theories. *Rev Med Virol*. 2021;(December 2020):1–11.
- Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. *Acta Biomed*. 2020;91(1):157–60.
- Wolfe KL, Nakonezny PA, Owen VJ, Rial KV, Moorehead AP, Kennard BD, Emslie GJ. Hopelessness as a Predictor of Suicide Ideation in Depressed Male and Female Adolescent Youth. *Suicide Life Threat Behav*. 2019 Feb;49(1):253-263. doi: 10.1111/sltb.12428. Epub 2017 Dec 21. PMID: 29267993; PMCID: PMC6013307.
- Baryshnikov I, Rosenström T, Jylhä P, Vuorilehto M, Holma M, Holma I, Riihimäki K, Brown GK, Oquendo MA, Isometsä ET. Role of Hopelessness in Suicidal Ideation Among Patients With Depressive Disorders. *J Clin Psychiatry*. 2020 Feb 11;81(2):19m12866. doi: 10.4088/JCP.19m12866. PMID: 32074414.
- Chang EC. Hope and hopelessness as predictors of suicide ideation in Hungarian college students. *Death Stud*. 2017 Aug;41(7):455-460. doi: 10.1080/07481187.2017.1299255. Epub 2017 Feb 26. PMID: 28346075.
- Hossein Sadeghian M, Etesam F, Nakhostin-Ansari A, Akbarpour S, Akhlaghi M. Association Between Hopelessness And Suicidal Ideation In Iranian Medical Students: A Cross-Sectional Study. *Health Psychol Res*. 2021 Aug 18;9(1):27579. doi: 10.52965/001c.27579. PMID: 35106399; PMCID: PMC8801550.
- Huen JMY, Ip BYT, Ho SMY, Yip PSF (2015) Hope and Hopelessness: The Role of Hope in Buffering the Impact of Hopelessness on Suicidal Ideation. *PLoS ONE* 10(6): e0130073. <https://doi.org/10.1371/journal.pone.0130073>
- Rabi FA, Al Zoubi MS, Al-Nasser AD, Kasasbeh GA, Salameh DM. SARS-COV-2 and Coronavirus Disease 2019: what we know so far. *Pathogens*. 2020;9(3):1–14.
- Zhou P, Yang X Lou, Wang XG, Hu B, Zhang L, Zhang W, et al. A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*. 2020;579(7798):270–3.
- Gorbalenya AE, Baker SC, Baric RS, de Groot RJ, Drosten C, Gulyaeva AA, et al. Severe Acute Respiratory Syndrome-related coronavirus: the species and its viruses – a statement of the Coronavirus Study Group. *bioRxiv*. 2020;1–15.