Perceived Social Responsibility and Vaccine Hesitancy Among Parents of Grade 12 Student in Laboratory High School

R.T Deximo, Enaguas, G Lucero *, I.K., Medel, M., Malaco, A., Abusama, H.

Sultan Kudarat State University Laboratory High School, Tacurong City, 9800 Sultan Kudarat, the Philippines
Correspondence: E-mail: icylkatelucero@sksu.edu.ph

ABSTRACTS

Concerns about vaccine hesitancy are growing worldwide, and now parents are also refusing to vaccinate their children because of vaccination issues even against vaccine-preventable diseases. Hence, this study was conducted to determine the level of vaccine hesitancy and perceived social responsibility in parents and their association with one another. The novelties in this research are (1) Level of Perceived Social Responsibility among Parents, (2) Level of Vaccine Hesitancy among Parents, and (3) Association between the Level of Perceived Social Responsibility and Level of Vaccine Hesitancy. In this study, a quantitative-descriptive research design was used to find out the level of acceptability among the 40 selected parents of Grade 12 students in Sultan Kudarat State University (SKSU) – Laboratory High School. A random sampling technique was utilized in this study. The results implied that the parents have a high level of perceived social responsibility. The results also showed that the parents have a low level of vaccine hesitancy. As to the test of the association between perceived social responsibility and vaccine hesitancy, it shows that there is a statistically significant association between them. Therefore, parents of Grade 12 students have a high level of perceived social responsibility and know that vaccinations are part of their responsibilities as citizens.

© 2021 Universitas Pendidikan Indonesia
1. INTRODUCTION

The COVID-19 pandemic has caused a massive impact on the health of people (Anggraeni et al., 2020). Many researchers have reported the ways to against Covid-19 pandemic (Machmud and Minghat, 2020; Putra and Abidin, 2020; Anggraeni et al., 2020; Razon, 2020; Hamidah et al., 2020; Hashim et al., 2020; Dirgantari et al., 2020; Mulyanti et al., 2020; Sangsawang, 2020; Hasanah et al., 2020).

Concerns about vaccine hesitancy are growing worldwide. Parents are also refusing to vaccinate their children because of vaccination issues even against vaccine-preventable diseases. Literature related to vaccine hesitancy (Lazarus et al., 2021), susceptibility of vaccine-hesitant parents (Migrino et al., 2020), the perspective of parents towards immunization (Hendrix et al., 2020), and vaccination issues (Wilder-Smith et al., 2019) were used in forming this study. However, there is no study about the association between the level of vaccine hesitancy and perceived social responsibility among parents (Gowda et al., 2013).

The study was conducted to determine the level of vaccine hesitancy and perceived social responsibility in parents. The purpose of the study is to gather data on how vaccine-hesitant parents are and its association with their perceived social responsibility as citizens through the use of surveys and statistical analysis. It is unique for it is relevant for the current condition of the world. It is the reflection of the current thoughts of parents during a pandemic, their perspective towards vaccinations, and how these are determined through their perceived responsibility as parents.

2. METHODS

This study utilized the following instruments for the surveys: (1) SRS-37, a standardized social responsibility questionnaire to determine perceived social responsibility among parents, and (2) Vaccine Hesitancy survey questionnaire by WHO to measure the extent of vaccine hesitancy among parents.

The Likert Scale was utilized in this study. In perceived social responsibility, a five-point likert scale was presented: (0) strongly disagree, (1) disagree, (2) neutral, (3) agree, and (4) strongly agree. In vaccine hesitancy, a three-point Likert scale was used: (0) no, (1) neutral, and (2) yes.

The rating scales shown in Tables 1 and 2 were used to determine and interpret the level of perceived social responsibility and vaccine hesitancy among the respondents. This scale was used to interpret the obtained mean for each indicator.

Table 1. Rating scale and its interpretation

| Range    | Description | Interpretation                                      |
|----------|-------------|----------------------------------------------------|
| 3.25 – 4 | Very High   | Very High level of Perceived Social Responsibility  |
| 2.45 – 3.2 | High       | High Level of Perceived Social Responsibility Score |
| 1.65 – 2.4 | Medium     | Moderate Level of Perceived Social Responsibility Score |
| 0.85 – 1.6 | Low        | Low Level of Perceived Social Responsibility Score  |
| 0.00 – 0.8 | Very Low   | Very Low Level of Social Responsibility Score       |
Table 2. Rating and interpretation scale on level of vaccine hesitancy

| Range   | Description | Interpretation                   |
|---------|-------------|----------------------------------|
| 2.45 - 3 | Very High   | Very High Level of Vaccine Hesitancy |
| 1.85 – 2.4 | High        | High Level of Vaccine Hesitancy   |
| 1.25 – 1.8 | Medium      | Medium Level of Vaccine Hesitancy |
| 0.65 – 1.2 | Low         | Low Level of Vaccine Hesitancy    |
| 0.00 – 0.6 | Very Low    | Very Low Level of Vaccine Hesitancy |

3. RESULTS AND DISCUSSION

3.1. Level of perceived social responsibility among parents

Table 3 presents the level of perceived social responsibility of the respondents. The questions were divided into three categories: 1) civil consciousness and public interest, 2) reflection on consequences of one’s action, and 3) moral consciousness. In conclusion, the parents of Grade 12 students had a high level of perceived social responsibility in terms of civil consciousness and public interest (3.17), reflection on consequences of one’s actions (2.63), and moral consciousness (3.185) with a total of 2.995. Vaccination is a social responsibility (Kovalchuk, 2010). It is a duty for us to owe each other as members of a community (Williams et al., 2013). Since vaccination protects do not only apply for the individual but also for protecting the community, it then becomes a social responsibility.

3.2. Level of academic support of parents in online learners

Table 4 shows the level of vaccine hesitancy of the parents by three factors: 1) Contextual Influence, 2) Individual and Group Influence, and 3) Vaccine/ Vaccination- specific issues. In conclusion, the parents of Grade 12 students had a low level of vaccine hesitancy in terms of Contextual Influence (0.99), very low level in the factor of Individual and Group Influence (0.52), and low level in terms of Vaccine/ Vaccination- specific issues (1.16). In total, the respondents have a mean of 0.89 which meant they are categorized to have a low level of vaccine hesitancy. This result is in a good agreement with literature (Dube et al., 2015).

Table 3. Perceived social responsibility and its interpretation.

| Perceived Social Responsibility In Terms of: | Description | Interpretation                                      |
|---------------------------------------------|-------------|-----------------------------------------------------|
| Civil Consciousness and Public Interest      | 3.17        | High Level of Perceived Social Responsibility        |
| Reflection on Consequences of One’s Action  | 2.63        | High Level of Perceived Social Responsibility        |
| Moral Consciousness                          | 3.185       | High Level of Perceived Social Responsibility        |
| Total                                        | 2.995       | High Level of Perceived Social Responsibility        |

Table 4. Level of vaccine hesitancy

DOI: http://dx.doi.org/10.17509/xxxx.vxix
p- ISSN 2775-8400 e- ISSN 2775-9857
Table 5. Association between Perceived Social Responsibility and Vaccine Hesitancy

| Sources of Variation                        | Spearman’s correlation rho | p-value | n  | Interpretation               |
|--------------------------------------------|-----------------------------|---------|----|------------------------------|
| Level of Perceived Social Responsibility and Level of Vaccine Hesitancy | -0.2803                     | 0.0798  | 40 | There is a statistical significant association |

3.3. Association between the level of perceived social responsibility and level of vaccine hesitancy

Table 5 shows the results on the association between the level of perceived social responsibility and vaccine hesitancy among the parents. The results shown in the table that the Spearman’s rho is -0.2803 and that the p-value is 0.0798. The decision rule is that the Null Hypothesis will be rejected if p-value < 0.10. Since the p-value = 0.0798 and is less than 0.10, the Null Hypothesis (H0) will be rejected. Therefore, there is a statistically significant association between Perceived Social Responsibility and Vaccine-Hesitancy among the parents of Grade 12 students in Laboratory High School. In the table, the Spearman’s rho value is $p = -0.2803$. At $\alpha=0.10$, there is a negatively weak monotonic association between Perceived Social Responsibility and Vaccine Hesitancy of the parents.

4. CONCLUSION

In conclusion, parents do know that their responsibility in terms of decision-making on getting a vaccination for their family is crucial to the health of both them and their children. They are less hesitant to vaccines and know that getting a vaccine is a social responsibility to them. It also indicates that a parent that has a high level of perceived social responsibility does know that getting a vaccine is a responsibility that every citizen should do.

5. AUTHORS’ NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

6. ACKNOWLEDGEMENTS
We wanted to give thanks to everyone who has been part of the making of the study, especially the research advisers and the respondents.

7. REFERENCES

Anggraeni, S., Maulidina, A., Dewi, M. W., Rahmadianti, S., Rizky, Y. P. C., Arinalhaq, Z. F., and Al-Obaidi, A. S. M. (2020). The deployment of drones in sending drugs and patient blood samples COVID-19. Indonesian Journal of Science and Technology, 5(2), 193-200.

Dirgantari, P. D., Hidayat, Y. M., Mahphoth, M. H., and Nugraheni, R. (2020). Level of use and satisfaction of e-commerce customers in covid-19 pandemic period: An information system success model (ISSM) approach. Indonesian Journal of Science and Technology, 5(2), 261-270.

Dubé, E., Vivion, M., and MacDonald, N. E. (2015). Vaccine hesitancy, vaccine refusal and the anti-vaccine movement: Influence, impact and implications. Expert Review of Vaccines, 14(1), 99-117.

Gowda, C., Schaffer, S. E., Kopec, K., Markel, A., and Dempsey, A. F. (2013). A pilot study on the effects of individually tailored education for MMR vaccine-hesitant parents on MMR vaccination intention. Human Vaccines and Immunotherapeutics, 9(2), 437-445.

Hamidah, I., Sriyono, S., and Hudha, M. N. (2020). A Bibliometric analysis of Covid-19 research using VOSviewer. Indonesian Journal of Science and Technology, 5(2), 209-216.

Hasanah, L., Hakim, W. L., Aminudin, A., Sahari, S. K., and Mulyanti, B. (2020). A design and performance analysis of a telemetry system for remote monitoring of turbidity of water during the covid-19 pandemic. Indonesian Journal of Science and Technology, 5(2), 299-307.

Hashim, S., Masek, A., Abdullah, N. S., Paimin, A. N., and Muda, W. H. N. W. (2020). Students’ intention to share information via social media: A case study of COVID-19 pandemic. Indonesian Journal of Science and Technology, 5(2), 236-245.

Hendrix, K. S., Sturm, L. A., Zimet, G. D., and Meslin, E. M. (2016). Ethics and childhood vaccination policy in the United States. American Journal of Public Health, 106(2), 273-278.

Kovalchuk, O. S. (2010). Developing a psychodiagnostic tool to measure social responsibility of personality. Psychological Aspects of Innovative Changes in Organization and Organizational Development, 92-93.

Lazarus, J. V., Ratzan, S. C., Palayew, A., Gostin, L. O., Larson, H. J., Rabin, K., and El-Mohandes, A. (2021). A global survey of potential acceptance of a COVID-19 vaccine. Nature Medicine, 27(2), 225-228.

Machmud, A., and Minghat, A. D. B. (2020). The price dynamics of hand sanitizers for COVID-19 in Indonesia: Exponential and cobweb forms. Indonesian Journal of Science and Technology, 5(2), 176-184.

Migriño Jr, J., Gayados, B., Birol, K. R. J., De Jesus, L., Lopez, C. W., Mercado, W. C., and Tulagan, G. (2020). Factors affecting vaccine hesitancy among families with children 2
years old and younger in two urban communities in Manila, Philippines. *Western Pacific Surveillance and Response Journal: WPSAR, 11*(2), 20.

Mulyanti, B., Purnama, W., and Pawinanto, R. E. (2020). Distance learning in vocational high schools during the covid-19 pandemic in West Java province, Indonesia. *Indonesian Journal of Science and Technology, 5*(2), 271-282.

Putra, Z. A., and Abidin, S. A. Z. (2020). Application of SEIR model in COVID-19 and the effect of lockdown on reducing the number of active cases. *Indonesian Journal of Science and Technology, 5*(2), 185-192.

Razon, B. C. (2020). COVID 19: Impetus for “Community Spirits” among Filipinos. *Indonesian Journal of Science and Technology, 5*(2), 201-208.

Sangsawang, T. (2020) An instructional design for online learning in vocational education according to a self-regulated learning framework for problem solving during the COVID-19 crisis. *Indonesian Journal of Science and Technology, 5*(2), 283-198.

Wilder-Smith, A., Flasche, S., and Smith, P. G. (2019). Vaccine-attributable severe dengue in the Philippines. *The Lancet, 394*(10215), 2151-2152.

Williams, S. E., Rothman, R. L., Offit, P. A., Schaffner, W., Sullivan, M., and Edwards, K. M. (2013). A randomized trial to increase acceptance of childhood vaccines by vaccine-hesitant parents: a pilot study. *Academic Pediatrics, 13*(5), 475-480.