

## Attitudes and Perceived Competence of Psychometricians Toward Psychological Tele-Assessment in the Philippines

*Actitudes y competencia percibida de los psicometristas hacia la teleevaluación psicológica en Filipinas*

Jowie Lumanog Advincula<sup>1</sup>

Archie Balingit Sunga<sup>2</sup>

**Abstract:** This study aims to determine the attitudes and perceived competence level of 64 Filipino registered psychometricians with prior experience in psychological tele-assessment to conduct this service for their present and future clientele. Researchers used the unified theory of acceptance and use of technology (UTAUT) that connects attitude and mental health services and a five-theme framework that discusses the factors or needs in facilitating successful tele-assessment. The results revealed a predominantly positive attitude toward psychological tele-assessment yet with the emergence of contradicting appraisals. Most tended to agree on the benefits of tele-assessment in addressing mental health concerns, but concerns about its flexibility, privacy, confidentiality, rapport, and communication were salient. Respondents reported high openness to conducting tele-assessment in the future but recognized that this was more challenging than the traditional assessment. They evaluated themselves with low confidence and were somewhat knowledgeable about the ethical issues involved in this service. Results further indicated low perceived competence to conduct tele-assessment. They expressed the need for more training, specific local guidelines, access to technology, and available online tests for tele-assessment.

**Keywords:** Psychological Tele-Assessment; Attitude; Perceived Competence; Psychometricians; Philippines.

**Resumen:** Este estudio tuvo como objetivo determinar las actitudes y el nivel de competencia percibido de 64 psicometristas registrados filipinos con experiencia previa en teleevaluación psicológica para llevar a cabo este servicio para su clientela presente y futura. Los investigadores utilizaron la teoría unificada de aceptación y uso de la tecnología (UTAUT) que conecta la actitud y los servicios de salud mental y un marco de cinco temas que analiza los factores o necesidades para facilitar una teleevaluación exitosa. Los resultados revelaron una actitud predominantemente positiva hacia la teleevaluación psicológica pero con la aparición de valoraciones contradictorias. La mayoría tendió a estar de acuerdo con los beneficios de la teleevaluación para abordar los problemas de salud mental, pero las preocupaciones sobre su flexibilidad, privacidad, confidencialidad, relación y comunicación fueron las más destacadas. Los encuestados informaron una gran apertura para realizar una teleevaluación en el futuro, pero reconocieron que esto era más desafiante que la evaluación tradicional. Se evaluaron a sí mismos con poca confianza y estaban algo informados sobre los problemas éticos involucrados en este servicio. Los resultados indicaron además una baja competencia percibida para realizar la teleevaluación. Expresaron la necesidad de más capacitación, pautas locales específicas, acceso a la tecnología y pruebas en línea disponibles para la teleevaluación.

1. OSPITAL NG MAKATI, PHILIPPINES. [advnculajo@gmail.com](mailto:advnculajo@gmail.com)

2. RGO PSYCHOLOGY REVIEW CENTER, PHILIPPINES. [archiesunga@gmail.com](mailto:archiesunga@gmail.com)

### Suggested Citation (APA, 7th edition)

Lumanog Advincula, J., & Balingit Sunga, A. (2022). Attitudes and Perceived Competence of Psychometricians Toward Psychological Tele-Assessment in the Philippines. *Espergesia*, 9(2), 1-15. <https://doi.org/10.18050/rev.espergesia.v9i2.2320>



**Palabras clave:** teleevaluación psicológica; actitud; competencia percibida; psicometristas; Filipinas.

## 1. Introduction

During extraordinary circumstances, such as the COVID-19 pandemic, psychology professionals have been compelled to transform the delivery of high-quality healthcare using emerging information and communication technology. In the Philippines, a more reliable internet connection to provide psychological services like counseling and assessment have apparent advantages in urban areas. While in the rural areas, the provision of mental health services was much more particularly lagged even before the pandemic profoundly hit the country because of poverty and shortage of mental health professionals (Dayrit et al., 2018). Inadequacies allow some private practitioners to employ services with higher fees, resulting in more people preceding when care is sought.

Addressing the increasing number of mental health disorders becomes more complicated and challenging due to rising health care costs exacerbated by the pandemic (Estrada et al., 2020). They author indicated that there were 0.07 psychologists and 0.52 psychiatrists per 100,000 inhabitants suggesting a severe shortage of specialists than what is required by the World Health Organization Lally & Samaniego (2020). The local article of Lobien emphasized the need for more Filipino psychology experts brought by an alarming number of deaths from suicide among the 15–24-year-old group; however, gathering a large pool of capable professionals requires extensive training and passing licensure examinations (Lobien, 2019). During the pandemic, management strategies to help deliver telehealthcare to Filipinos are through telephone and video conferencing. The National Center for Mental Health (NCMH) issued a free, public crisis hotline for online consultations. Some private sectors and non-government organizations also provide free telephone consultations and online counseling services (Buenaventura et al., 2020).

The Psychological Association of the Philippines has issued ethical and practical guidelines in telepsychology for mental health professionals. It includes the following: ensuring competence in practicing and application of technology; upholding ethical practice by abiding with the code of ethics and obtaining informed consent electronically; developing an efficient system of providing online services; being ready to respond to emergencies; self-care; and, anticipating changes in the practice after the pandemic (Psychological Association of the Philippines, 2020). These guidelines are aligned with the practice of telepsychology of the American Psychological Association (APA) and the Code of Ethics for Philippine Psychologists.

Telepsychology is the “provision of behavioral and mental health care services using technological modalities in place of, or in addition to, traditional face-to-face methods” (American Psychological Association, 2013). Conoley and Gutkin emphasized that telepsychology can reduce the physical barriers to service access (Conoley & Gutkin, 2018). Despite this benefit, concerns regarding the confidentiality, privacy, test integrity, validity, and reliability of tele-assessment and its results have been raised. Knowing the existing ethical guidelines on tele-assessment empowers the professional to determine under what circumstances such service is feasible (Stifel et al., 2020).

Tele-assessment is a practice of psychological assessment using telehealth platforms that involves collecting and analyzing multiple sources of data from interviews, self-report measures, collateral report measures, and other measures as a basis when making clinical decisions (Wright et al., 2020). Guidance on psychological tele-assessment during the COVID crisis by Wright et al. includes principles in providing psychological assessment services under physical distancing constraints. It highlights the following: not jeopardizing test security, being mindful and ethical in doing what is available to the test user, being rigorously mindful of data quality; thinking critically about the test and subtest substitutions; widening confidence intervals when making conclusions and clinical decisions, and maintaining the same ethical standards of care as in traditional psychological assessment services (Philippine Psychology Act, 2009).

The R.A. No. 10029 or The Philippine Psychology Act of 2009 stipulates that psychometricians can only administer self-report psychological tests [11]. They are not permitted to do performance-based testing and conduct psychological assessment without the supervision of a psychologist. The limited number of psychologists allows some psychometricians with sufficient training and supervision hours to do testing. Such was evident in the local study of Tarroja et al., where the majority of the psychometricians provide an assessment. This kind of practice for some psychology professionals was adversely affected during the pandemic in which supervision was limited (Tarroja, 2020).

From one of their webinars, Alianan presented some factors associated with the limited delivery and engagement in tele-assessment. These include the challenges with standardized assessment procedures that require face-to-face contact, scarce local studies about tele-assessment, and lack of clear guidelines in various contexts where tele-assessment is applicable, like schools, companies, and hospitals (Alianan, 2021). Locsin highlighted in her discussion in a PAP-sponsored webinar that inadequate acceptance of tele-assessment by either the practitioner or the patient can influence the reliability and validity of psychological assessments (Locsin, 2021). Acceptance plays a vital role in the practice of tele-assessment. Moreover, the informal exchanges among professionals revealed other factors. These include having no provision for online tools or electronic devices to continue this service, poor acceptance of the efficacy of tele-assessment as an alternative mode to in-person assessment, and lack of appropriate training. These lead to lower confidence and efficiency in doing tele-assessment.

Over a year into the COVID-19 pandemic, decisions about the provisions of telepsychology services lie in the hands of individual professionals, especially in the Philippines. A primary goal of this undertaking is to describe the attitudes and perceived competence of psychometricians. The second important consideration is that current conditions as a foreword to future initiatives and that suggestions from the psychometricians' vantage point may formally reach training programs and professional organizations.

### **1.1. Definitions and Theoretical Framework**

Attitude is the totality of affective evaluations classified as positive or negative, or helpful or beneficial, as cited in the study of Apolinario-Hagen et al. on the attitude of the German population toward internet-based psychotherapies (Apolinario-Hagen et al., 2017). Khan et al. specified that attitudes toward psychological services could be affected by one's experience with mental health disorders, stigma, and engagement (Khan et al., 2007). From these factors, attitudes may also be described as ambivalent instead of a single positive or negative continuum (Hohman et al., 2014). While there is local and international research about the attitudes of mental health practitioners toward online counseling and internet-based psychotherapies, little is known about the attitudes toward tele-assessment in the general population.

Another factor highlighted in the study is perceived competence, which refers to the individual's perception of the ability to learn and perform skills. This kind of perception involves self-evaluation of how confident, open, and knowledgeable one is in accomplishing a task (Kremer et al., 2012). A person is likely to pursue and choose challenges that match his capability level. Those with high self-perception of competence exert more effort, feel more in control, and persist longer in new and challenging tasks (Peterson & Bry, 1980). Interestingly, a study on the perceived competence of young psychologists by Kuittinen et al. revealed that those with few years of work experience rated their competence at a lower level (Kuittinen et al., 2014). Contrastingly, newly graduated students gave themselves a high rating. Excitement and enthusiasm increased their level of motivation and confidence or optimism in their skills. Having taught the latest knowledge in education was not related to their perceived incompetence. However, having a high rating may be attributed to having

a lack of knowledge or comparison. Those experienced psychologists may have given themselves a low rating because they have a more realistic grasp of the challenges within their profession. The study revealed that feelings of incompetence were affected by their realization of their shortages of skills.

As a framework, this study utilized two models that highlight significant factors concerning technology and mental health services, even tele-assessment. First, the unified theory of acceptance and use of technology (UTAUT) by Viswanath Venkatesh emphasized perceived usefulness or when people think a mental health service involving technology is helpful (Venkatesh et al., 2003). Another is performance expectancy, which refers to people's belief that these will facilitate better or improved outcomes. Positive attitudes and acceptability become evident when these two are present. Also, a person is more inclined to avail of mental health services that utilize technology if he has knowledge or awareness about it and feels that high-quality technology can enhance his participation (Apolinario-Hagen et al., 2017).

The second model is the five-theme framework of Eichstadt et al. This framework signifies the five factors or needs that should be present to conduct tele-assessment, including modern equipment, updated assessment materials and procedures, examinee/respondent preparedness, knowledge and preparedness of examiner, and others (Eichstadt et al., 2013).

In telepractice environments and equipment, the synchronous administration of rating scales and questionnaires requires high-quality audio capabilities, free of audiovisual distractions, clear overhead and facial lighting, teleconferencing software, and high-quality video. The examiner is responsible for test item security and appropriateness to the purpose of the assessment. The preparedness of the examinee and the availability of devices are part of the examiner's responsibility. They should have adequate knowledge to rehearse or practice the online administration, adhere to standardized procedures, collaborate with facilitators, and troubleshoot concerns. They should also know how to exercise clinical judgment, use behavioral observations, and include the telepractice method used in the written report.

## **1.2. Aims of the Study**

This study aimed to determine the attitudes and perceived competence levels of Filipino registered psychometricians toward psychological tele-assessment. Furthermore, it aimed to explore their needs in conducting psychological tele-assessment. Specifically, this research aimed to answer the following questions:

1. What are the attitudes of Filipino registered psychometricians toward psychological tele-assessment?
2. What is the perceived competence level of Filipino registered psychometricians toward psychological tele-assessment?
3. What are the needs of Filipino registered psychometricians that will help them conduct psychological tele-assessment?

## **2. Methodology**

### **2.1. Research Design**

The research used a mixed-method design. The first section employed a descriptive method design where it is used to organize and summarize the properties of a set of data (Morling, 2018). In this section, the quantitative data gathered from the questionnaire about the attitude and perceived competence of psychometricians were summarized and described. The second section employed a qualitative descriptive design where it summarized the experiences of individuals or a group of

individuals (Lambert & Lambert, 2012). In this section, the qualitative responses from the respondents based on their answers to the survey's open-ended questions were collected and analyzed.

## 2.2. Respondents

The researchers employed purposive sampling as the method of recruiting the respondents. These Filipino registered, or licensed psychometricians have participated in psychological tele-assessment in their employment during the pandemic. Psychologists, guidance counselors, and mental health professionals who have training and background in tele-assessment but have no license as psychometricians are excluded.

**Table 1**

*Demographic profile of the respondents*

|   | <i>n</i> | %     |
|---|----------|-------|
| <b>Highest Educational Attainment</b>   |          |       |
| Bachelor's Degree                       | 48       | 75.00 |
| Master's Degree                         | 15       | 23.44 |
| Doctorate Degree                        | 1        | 1.56  |
| <b>Years of being a Psychometrician</b> |          |       |
| 1 to 2 years                            | 8        | 12.50 |
| 3 to 4 years                            | 17       | 26.56 |
| 5 to 6 years                            | 31       | 48.44 |
| More than 6 years                       | 8        | 12.50 |
| <b>Place of Employment/Practice</b>     |          |       |
| National Capital Region                 | 31       | 48.44 |
| Luzon                                   | 28       | 43.75 |
| Visayas                                 | 3        | 4.69  |
| Mindanao                                | 2        | 3.13  |

*n* = 64

A total of 64 psychometricians participated in the online survey. As presented in Table 1, the majority of the respondents have a bachelor's degree in psychology (75.00%) and work as a psychometrician for 5 to 6 years (48.44%) in the National Capital Region (48.44%), followed by Luzon (43.75%). A small number of respondents was influenced by the small population of psychometricians who met the criteria. Many psychological centers purposely suspended provision for psychological assessment during the pandemic due to a lack of access to standardized online tests and assessments and limitations in technology, training, and finances.

## 2.3. Measures

The researchers, who have training in tele-assessment practices, collaboratively developed the online survey. The initial version of the survey was adapted from the self-developed questionnaire of Apolinario-Hagen et al. with their permission. Adapting and modifying an existing instrument for research involves reestablishing the reliability and validity during data analysis (Creswell & Creswell, 2018). The researchers followed the general design of another questionnaire but substantially changed the content of each item. Two clinical psychologists and two psychometricians in the Philippines did the content validation and added input to the survey. The final version of the survey consisted of 21 items, 17 items measured attitude ( $\alpha = .80$ ), and 4 items measured perceived competence ( $\alpha = .63$ ).

The online survey consisted of five sections. The first section involved the consent form, while the second section consisted of the demographic profile. The main instrument consisted of the questions about attitude and perceived competence in psychological tele-assessment measured using a four-point Likert scale (1 = strongly disagree /very low perceived competence to 4 = strongly agree /very high perceived competence). The final section inquired about the respondents' needs, that is



any personal, material, or professional resources, that would help them in more effective psychological tele-assessment.

## 2.4. Procedures

The recruitment of the respondents involved three steps. First, the researcher posted an infographic display of the study containing the respondents' criteria on social media platforms such as Facebook, Instagram, and LinkedIn. The call for respondents was posted more on Facebook public pages and groups specifically for Filipino registered psychometricians. Second, the researchers emailed request letters to 30 psychological centers that offered mental health services during the pandemic, as listed by the Psychological Association of the Philippines (PAP, 2020). Researchers also sought the assistance of the Clinical Psychology Division and Psychology Practitioners in Public Service Special Interest Group of the said association to gather respondents. However, 50 percent of the psychological centers declined participation for significant reasons. They did not provide tele-assessment or stopped providing testing and assessment services, and psychometricians were mainly assigned to administrative or clerical tasks. Lastly, the primary survey was administered to the respondents who met the aforementioned criteria through Google Forms.

Respondents received a link to the survey that comprised the written consent form. The form explains the purpose and nature of this study and that their participation is voluntary and they can withdraw anytime without penalty or consequences. Moreover, their information will remain confidential and be used only for research purposes and for the researcher's publication. The survey contained questions about attitudes, perceived competence, and an open-ended question about psychological tele-assessment. Online data collection was conducted from July 28 to September 30, 2021.

## 2.5. Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) for the quantitative responses. For the first and second research questions where the level of attitude and perceived level of competence were the focus, mean scores were employed to describe the attitude and perceived competence of the respondents toward tele-assessment. High mean scores signify inclination to a positive attitude and high perceived competence, while low mean scores signify direction to a negative attitude and low perceived competence toward psychological tele-assessment. For the last research question where the needs of psychometricians in conducting the psychological tele-assessment, thematic analysis adapted from the six-phase guide of Braun and Clarke was used to analyze the qualitative data from the open-ended question (Braun & Clarke, 2006). This guide's first and second steps were familiarizing and producing initial codes based on the data. The third and fourth steps involved the creation and refining of significant themes. The fifth and last steps included defining and reporting the generated themes.

### 3. Results

**Table 2**

*Summary of scores for attitude toward psychological tele-assessment*

| Item  | M(SD)       | Verbal Interpretation |
|---|-------------|-----------------------|
| Tele-assessment is in line with modern times.   | 3.37 (.604) | Strongly Agree        |
| Tele-assessment will replace conventional face-to-face assessment in the future.  | 2.39 (.847) | Disagree              |
| Tele-assessment is better compatible with work and private life than conventional face-to-face assessment.  | 2.30 (.683) | Disagree              |
| It makes no difference to me whether assessment is conducted through the use of technological modalities or in face-to-face assessment              | 2.23 (.850) | Disagree              |
| Tele-assessment will reach more individuals with mental health concerns.  | 3.44 (.560) | Strongly Agree        |
| A lesser expense should cover the cost of tele-assessment than the usual price for conventional face-to-face assessment.                            | 2.63 (.807) | Agree                 |
| Tele-assessment is as effective as conventional face-to-face assessment.  | 2.28 (.806) | Disagree              |
| Trust in the test user can be just as easily built on the Internet similarly in traditional face-to-face assessment.                                | 2.19 (.664) | Disagree              |
| Tele-assessment is an appropriate alternative to conventional face-to-face assessment.  | 2.95 (.700) | Agree                 |
| In case of evaluation of mental health concerns, I would consider the use of tele-assessment.   | 2.80 (.622) | Agree                 |
| I would personally prefer a tele-assessment than a conventional face-to-face assessment.  | 2.13 (.701) | Disagree              |
| Tele-assessment will reach more clients and help them.  | 3.19 (.531) | Agree                 |
| I am not particularly worried about data security in the practice of tele-assessment.   | 1.97 (.776) | Disagree              |
| The physical distance set in the conduct of tele-assessment decreases the client's opportunity to speak openly and honestly about important issues. | 2.86 (.687) | Agree                 |
| Through the dissemination of the importance of tele-assessment, many people will get professional help earlier.                                     | 3.22 (.519) | Agree                 |
| Communication issues between the test user and client occur in tele-assessment as often as in conventional face-to-face assessment.                 | 2.88 (.604) | Agree                 |
| Regarding success and rapport, it makes no difference whether contacts with a test user are provided via the Internet or face-to-face setting.      | 2.45 (.754) | Disagree              |

The scores of items in the attitude section of the questionnaire are presented in Table 2. Respondents strongly agreed that tele-assessment is in line with the modern times ( $M=3.37$ ,  $SD=.604$ ) and it will reach more individuals with mental health concerns ( $M=3.44$ ,  $SD=.560$ ) items. Also, moderate mean scores ranging from 2.63 to 3.22, which were interpreted as “agree” by the respondents, were observed from the majority of the items. On the other hand, respondents reported disagreement on several items with mean scores ranging from 1.97 to 2.45. They reported the major disagreement on the confidence in data security during tele-assessment ( $M=1.97$ ,  $SD=.776$ ) and on the preference of tele-assessment over a conventional face-to-face assessment ( $M=2.13$ ,  $SD=.701$ ).

**Table 3**

*Summary of scores of perceived competence toward psychological tele-assessment*

| Item  | M(SD)       | Verbal Interpretation  |
|---|-------------|------------------------|
| How would you rate your openness to participate in the conduct of tele-assessment in the future?              | 3.16 (.695) | High Openness          |
| How challenging do you think is conducting tele-assessment compared to face-to-face testing?                  | 1.42 (.529) | More Challenging       |
| How would you rate your confidence to participate in the conduct of tele-assessment?                          | 2.20 (.694) | Low Confidence         |
| How would you rate your knowledge about the ethical issues involved in conducting tele-assessment to clients? | 2.31 (.687) | Somewhat Knowledgeable |

The summary of scores for the perceived competence toward psychological tele-assessment is presented in Table 3. High level of openness was observed when asked about their participation in tele-assessment in the future (M=3.16, SD=.695). In terms of perception of difficulty level, respondents deemed it was more challenging than the traditional testing and assessment (M=1.42, SD=.529). They have low level of confidence in participating in tele-assessment in the future (M=2.20, SD=.694) and reported being somewhat knowledgeable about the ethical issues involved in conducting tele-assessment to clients (M=2.31, SD=.687).

**Table 4**

*Mean scores of attitudes and perceived competence*

| Variable             | M(SD)      | Verbal Interpretation |
|----------------------|------------|-----------------------|
| Attitude             | 2.66 (.34) | Positive              |
| Perceived Competence | 2.27 (.31) | Low                   |

Mean scores of the variables and verbal interpretations are presented in Table 4. The attitudes of the psychometricians to psychological tele-assessment were deemed positive (M=2.66, SD=.34) while perceived competence was deemed low (M=2.27, SD=.31).

**Table 5**

*Frequency distribution of qualitative responses*

| Extracted Theme                            | Frequency |
|--|-----------|
| Trainings on Psychological Tele-Assessment | 31        |
| Specific Local Guidelines                  | 16        |
| Technological Accessibility                | 12        |
| Session Security                           | 9         |
| Availability of Online Psychological Tests | 7         |

The responses of the respondents with regards to their additional needs and resources to effectively conduct psychological tele-assessment are presented in Table 5. The majority of the respondents (f=31) requested more training, in which responses included webinars, workshops, “support from the organizations in conducting psychological tele-assessment”, and “proper training and knowledge on how to handle tele-assessment well.” Following this is the need for specific local guidelines (f=16), such as clear and updated ethical rules that are fit for Filipino psychometricians and their clientele. One respondent stated, “I’m not sure if there is one but local guidelines for telehealth



practices... Currently, we're only following/adapting guidelines from the APA, but not everything applies to us because the laws are different." Technological accessibility (f=12), where the majority of the respondents cited stronger internet connection as one of their necessities. Some of the responses pertained to the availability of effective computer programs and applications, and the "need to be immersed in tech-related discussions so test admins would be more adept in navigations." Session security (f=9), pertaining to the need for a safe and confidential online session should be a priority according to the respondents. This concern was about cybersecurity and data privacy. Some of the responses were: "test content is not secured because it can be recorded by the clients" and "secured website that protects the data of the client." Lastly, the availability of tests that are fit for online sessions (f=7) was a concern because not all psychological tests can be administered online. Specifically, respondents stated that "online version of valid and reliable psychological tests" and "psychological tests modified for tele-assessment" are needed.

#### **4. Discussion**

The results signify the psychometricians' positive attitudes toward tele-assessment, while the perceived competence, defined in their openness, confidence, and level of difficulty and knowledge, is low. The following sections present the main findings and implications for future research:

##### **4.1. Attitudes toward tele-assessment**

Our findings indicate an inclination to a primarily positive attitude, yet with the emergence of contradicting appraisals in some aspects of tele-assessment. Consistent with the definition of Khan et al., the researchers evaluate the psychometricians' attitude in continua (Khan et al., 2014). Hence, we describe it as primarily positive yet with an ambivalent attitude. Positive attitudes involve their strong agreement toward the benefits of tele-assessment, which include reaching out to more clients in need of professional help, thus addressing more mental health concerns. Psychometricians strongly agree that the facilitation of tele-assessment is in line with modern times. Most of them agree that tele-assessment can necessitate early interventions. These findings are consistent with the technology acceptance model (TAM) and the unified theory of acceptance and use of technology (UTAUT) by Venkatesh et al., which emphasizes that perceived usefulness is significant for usage intentions (Venkatesh et al., 2014). The study of Apolinario-Hagen et al. supports these findings, explaining the connection between a positive attitude and a sense of helpfulness to mental health services using technology (Apolinario-Hagen et al., 2017). A more recent framework consistent with the findings is the integrated theory of Park, which accentuates the role of awareness and positive attitudes in the increased use of telepresence systems (Park, 2013). Although the respondents are highly aware of the high cost of tele-assessment, they agree on having a lesser expense than the usual price for a face-to-face assessment.

These optimistic viewpoints are, however, challenged by other findings. Interestingly, most psychometricians agree that technology to conduct assessment can be an effective alternative to conventional assessment. However, they would still personally opt to have the face-to-face assessment than online. Another concept in the integrated theory of Park regarding the use of high-quality technology that can enhance performance appears less evident among the respondents (Park, 2013). Most respondents disagree that rapport can be just as quickly built on the internet, similar to the face-to-face assessment. For them, the physical distance serves as a barrier that decreases the client's opportunity to speak openly and honestly. In connection with this, we identify that the psychometricians recognize that difference exists in the success and rapport between a client and test user when using the internet or face-to-face setting. Analyses reveal that they predominantly agree about communication issues in an online platform occurring as often as in the traditional setup. The lowest agreement is found for the statement concerning data security in the practice of tele-assessment.

## 4.2. Perceived competence in tele-assessment

Another point to consider is the perceived competence of psychometricians toward tele-assessment that pertains to one's evaluation of confidence, openness, and knowledge in task accomplishment, as described by Kremer et al. Although this study lacks a clear-cut operational definition of perceived competence in tele-assessment, the abovementioned description applies to the context. Psychometricians present high openness to participate in tele-assessment in the future (Kremer et al., 2012). Despite the scant literature about the practice of tele-assessment in the Philippines, many psychometricians express their high interest and intent to participate in webinars about remote testing and assessment. These are evident in the different posts and comments sections of the known psychology groups or pages on social media. The 64 respondents find conducting tele-assessment more challenging than face-to-face testing, supporting the general impression that fewer psychometricians and psychologists practice tele-assessment in the Philippines. This appears congruent with the explanation that tele-assessment requires more complex preparation, procedural memory skills, and actual hands-on practice (Suhr, 2021).

Interestingly, psychometricians give a low rating in their confidence to participate in this specialized yet equally important psychological service. In terms of knowledge about ethical issues involved in conducting tele-assessment of clients, psychometricians describe that they are somewhat knowledgeable about these aspects. Overall, the psychometricians rate themselves with a low level of perceived competence.

## 4.3. Needs of psychometricians in conducting psychological tele-assessment

In general, psychometricians interpreted their needs in conducting psychological tele-assessment as the different resources that will prepare and equip them in their professional practice. Psychometricians should be competent in the field where continuing education and training are needed to effectively provide psychological services as stipulated in the Code of Ethics and Professional Standards for Psychology Professionals (Professional Regulation Commission, 2017). This affirms the study of Cabrera, which emphasized the need for psychology professionals for Continuing Professional Development (CPD) activities that are effective and will meet the international standards to enhance their abilities (Cabrera, 2019). Tarroja et al. reported that the majority of the psychometricians were able to receive training from their school and supervised internship about various psychological tests, test administration, and assessment-related topics in a face-to-face setting (Tarroja et al., 2020). Due to the pandemic and the quarantine restrictions set by the Philippine government, many schools offering graduate programs in psychology find alternative ways of teaching assessment and providing internships. Some schools opted to teach psychological assessment in the context of telehealth, while face-to-face internship was forcefully stopped to ensure the safety of the students. Students were asked to prepare and conduct webinars about mental health and write case studies as alternative activities for their internship. These activities, although beneficial, seemed to limit the competency of the students professionally or practically. The challenges mentioned above are consistent in other countries. Sayegh explained that the pandemic has disproportionately affected teaching assessment courses and training the students remotely (Sayegh, 2021). These concerns necessitate local resources and having clear guidelines in tele-assessment, as Wright et al. asserted that remote assessment is here to stay and should be incorporated into teaching and training, similarly to in-person assessment (Wright et al., 2020).

Although the PAP has issued telepsychology guidelines, most of its contents focus on registered psychologists' roles. The role of psychometricians in telepsychology may vary depending on the context [6]. Accordingly, psychometricians can only administer levels A and B psychological tests (Philippine Psychology Act, 2009; Professional Regulation Commission, 2017; Psychological Association of the Philippines, 2009). Moreover, the country's small number of registered psycholo-

gists has inadvertently prompted psychometricians to adapt to the guidelines with few adjustments to facilitate their work effectively and avoid ethical violations. Psychometricians may experience ethical dilemmas. While they abide by the Code of Ethics for Psychologists, they are not psychologists because their license is only for psychometricians. Although there are foreign guidelines available in conducting tele-assessment, having clear guidelines specifically for psychometricians on psychological tele-assessment might minimize this concern.

Technological accessibility, such as stronger internet connection, is another concern of the psychometricians in conducting psychological tele-assessment. A news article revealed that the Philippines' internet is the second slowest in the ASEAN countries (Porcalla, 2020). On the other hand, a recent report highlighted that it has improved. The country was ranked 17th for fixed broadband and 23rd for mobile internet out of the 50 countries in Asia (Mercurio, 2021). Despite these advancements, most of the respondents are still heavily concerned with the unstable internet connection in conducting psychological tele-assessment because it affects the success of the sessions. In support of this, having sufficient knowledge about computer programs or software is needed. Psychometricians are expected to be adept in using technology, considering remote assessment as an alternative to a face-to-face assessment that includes technological competence, equipment, tools, and comfort with technology (Eichstadt et al., 2013).

Psychometricians are also concerned about the privacy and confidentiality of sessions. These principles are some of the focuses of the Code of Ethics. Similarly, it is mandated in the law that any data, which includes personal and sensitive data, from an individual should be carefully secured and protected (Data Privacy Act, 2012). The use of technology, which applies to other services like counseling, requires precaution. In the study of the adoption of psychologists toward information and communication technologies (ICT), technology problems (e.g., equipment adjustments) and technical failures (e.g., Internet connection), as well as ethical concerns, reduced privacy, and lack of security, are the factors that need to be considered (Dores et al., 2020).

As psychometricians who conduct testing for psychological assessment, standardized tests modified for online testing are necessary. There are available tests, but the psychometric properties during psychological tele-assessment are in question due to standardization issues. The majority of the available tools for assessment are made only for a face-to-face assessment. Hence, there is a need for psychometrically valid tests for tele-assessment. Some test publishers have modified and provided tests for digital testing (PARiConnect, n.d.; Pearson Assessments, 2021). The American Psychiatric Association provided emerging measures in section III of the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) for test users to use as initial tools in their assessment (American Psychiatric Association, n.d.). However, the standardization and psychometric properties should be prioritized in administering those tests. Moreover, having extensive training regarding these tests should be prioritized to minimize errors in conducting psychological tele-assessment.

## 5. Conclusions

Filipino registered psychometricians who have engaged in tele-assessment during the pandemic have reported a prevailing positive attitude toward the benefits and usefulness of its service in reaching out to more people in need of professional assessment. Meanwhile, contradicting appraisals regarding flexibility, privacy, confidentiality, rapport, and communication between the client and professional were evident. Respondents have a high level of openness to conducting tele-assessment, despite the limitations in resources and skills. Willingness to undergo training and gain more knowledge was salient as they recognized that tele-assessment was more challenging than the traditional assessment. Consequently, the levels of confidence and knowledge about the ethical issues involved in tele-assessment were reported low. These results further coexist with their low

perceived competence to conduct this service to their present and future clientele. In response to these deterrents, psychometricians conveyed the need for increased training, local guidelines, and improved access to technology and online tests for tele-assessment.

### **Limitations and Future Directions**

This preliminary study has several limitations and implications for mental health professionals in clinical psychology and research. Similar to other studies assessing the public attitudes toward internet-delivered mental health services (Musiat et al., 2014), the researchers utilized a researcher-made survey. There has been no local and standardized tool to evaluate the attitude and perceived competence of registered psychometricians in the country. Although the attitude subscale has an acceptable internal consistency ( $\alpha = .80$ ) for research purposes, the perceived competence subscale has questionable internal consistency ( $\alpha = .63$ ) that can reduce its reliability. Also, the sampling was limited to a small number of respondents, affected by the decision of many psychological clinics or centers in the Philippines to withhold assessment service. Psychological clinics or centers postponed their assessment service for varying reasons, including lack of access to standardized online tests and assessments and limitations in technology, training, and finances.

Most respondents came from the Luzon Area or the country's largest island, which undoubtedly has more psychological centers and good technology access. The disparity of the respondents might indicate that assessment services could be limited in other areas of the country; thus, a lesser number of professionals to facilitate testing and people could benefit from it. Hence, the researchers hope that the Visayas and Mindanao areas would be equally represented to have a broader understanding of psychological tele-assessment in the country. The researchers did not fully utilize the demographic description of the respondents; thus, this may serve as a springboard for other researchers to explore and determine whether attitudes and perceived competence vary according to educational attainment and years and place of employment. Other researchers could utilize such data to have more excellent knowledge or understanding of the current state of psychometricians in the Philippines, which could inspire partnered associations or organizations to help address their needs.

An increased number of respondents could potentially aid in having a broader understanding of the practice of psychological tele-assessment in the country. Future studies should consider incorporating other groups involved in tele-assessment, such as psychologists, social workers, and those taking their internship/practicum at a graduate level. Determining students' attitudes under training, psychologists, and social workers could be a point of comparison and intervention, especially for those who feel ambivalent toward its use.

Moreover, operationalizing the terminologies "attitudes" and "perceived competence" toward psychological tele-assessment should be delineated using precise descriptions. Although the online surveys were examined by experts, it is advisable to periodically review the instrument's reliability and content validity level. Questions assessing the needs of the registered psychometricians could be enhanced by operationalizing the "needs" concept, focusing on specific needs, adding interview questions, or by conducting an in-depth interview. Early determination of their needs could be a focal point for training, services, and other resources.

The findings presented in this preliminary study should be interpreted with caution. The limited literature and studies about psychological tele-assessment in the Philippines is a final point to consider. It is highly suggestive for future studies to focus on using psychological tele-assessment in clinical and research practice.

### **Data Availability**

All data underlying the results are available as part of the article and no additional source data are required.



### Author contributions

**Jowie Lumanog Advincula:** Conceptualization, Project Administration, Supervision, Visualization, Investigation, Resources, Writing The Original Draft, Review, And Editing.

**Archie Balingit Sunga:** Conceptualization, Data Analysis, Methodology, Investigation, Validation, Resources, Writing The Original Draft, Review, And Editing.

### Competing interests

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of this article.

## 6. References

- Alianan, A. S. (2021). *Psychological assessment in the Philippine context during pandemic: More than a year on and going* [Conference Session]. One in Psychology 2021: The Annual General Assembly (Online) of Licensed Psychometricians by the Psychological Association of the Philippines – Assessment Psychology Division, Philippines.
- American Psychiatric Association. (n.d.). *Online assessment measures*. <https://www.psychiatry.org/psychiatrists/practice/dsm/educational-resources/assessment-measures>
- American Psychological Association (2013). *American Psychologists*, 68(9), 791–800. <https://www.apa.org/pubs/journals/features/amp-a0035001.pdf>
- Apolinario-Hagen, J., Vehreschild, V., & Alkoudmani, R. M. (2017). Current views and perspectives on e-mental health: An exploratory survey study for understanding public attitudes toward internet-based psychotherapy in Germany. *JMIR Mental Health*, 4(1). <https://doi.org/10.2196/mental.6375>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Buenaventura, R. D., Ho, J. B., & Lapid, M. I. (2020). COVID-19 and mental health of older adults in the Philippines: A perspective from a developing country. *International Psychogeriatrics*, 32(10), 1129-1133. <https://doi.org/10.1017/S1041610220000757>
- Cabrera, G. A. (2019). Issues and needs of registered psychologists and psychometricians on continuing professional development. *International Research Journal of Humanities and Social Sciences*, 7-22. [https://www.researchgate.net/publication/342124115\\_Issues\\_and\\_Need\\_of\\_Registered\\_Psychologists\\_and\\_Psychometrician\\_on\\_Continuing\\_Professional\\_Development](https://www.researchgate.net/publication/342124115_Issues_and_Need_of_Registered_Psychologists_and_Psychometrician_on_Continuing_Professional_Development)
- Conoley, J. C., & Gutkin, T. B. (2017). School psychology: A reconceptualization of service delivery realities. In S. N. Elliott & J. C. Witt (Eds.), *The delivery of psychological services in schools: Concepts, processes, and issues* (pp. 393–424).
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th Ed.). SAGE Publications, Inc.
- Data Privacy Act. (2012). *Republic Act 10173 – Data Privacy Act of 2012*. National Privacy Commission. <https://www.privacy.gov.ph/data-privacy-act/>
- Dayrit, M. M., Lagrada, L. P., Picazo, O. F., Pons, M. C., & Villaverde, M. C. (2018). The Philippines health system review. *World Health Organization*. Regional Office for South-East Asia. <https://apps.who.int/iris/handle/10665/274579>



- Dores, A. R., Geraldo, A., Carvalho, I. P., & Barbosa, F. (2020). The use of new digital information and communication technologies in psychological counseling during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *17*(20). <https://doi.org/10.3390/ijerph17207663>
- Eichstadt, T., Castilleja, N., Jakubowitz, M., & Wallace, A. (2013). *Standardized assessment via telepractice: Qualitative review and survey data* [Paper Presentation]. American Speech-Language-Hearing Association Annual Convention. Chicago, IL.
- Estrada, C. A., Usami, M., Satake, N., Gregorio, E., Leynes, C., Balderrama, N., de Leon, J. P., Concepcion, R. A., Timbalopez, C. T., Tsujii, N., Harada, I., Masuya, J., Kihara, H., Kawahara, K., Yoshimura, Y., Hakoshima, Y., & Kobayashi, J. (2020). Current situation and challenges for mental health focused on treatment and care in Japan and the Philippines - highlights of the training program by the National Center for Global Health and Medicine. *BMC Proceedings*, *14*(11). <https://doi.org/10.1186/s12919-020-00194-0>
- Hohman, Z. P., Crano, W. D., Siegel, J. T., & Alvaro, E. M. (2014). Attitude ambivalence, friend norms, and adolescent drug use. *Prevention Science*, *15*, 65-74. <https://doi.org/10.1007/s11121-013-0368-8>
- Khan, N., Bower, P., & Rogers, A. (2007). Guided self-help in primary care mental health: Meta-synthesis of qualitative studies of patient experience. *British Journal of Psychiatry*, *191*, 206-211. <https://doi.org/10.1192/bjp.bp.106.032011>
- Kremer, J., Moran, A., Walker, G., & Craig, C. (2012). Self-efficacy and perceived competence. In *Key concepts in sport psychology* (pp. 86-90). SAGE Publications Ltd, <https://www.doi.org/10.4135/9781446288702.n16>
- Kuittinen, M., Meriläinen, M., & Rätty, H. (2014). Professional competences of young psychologists: The dimensions of self-rated competence domains and their variation in the early years of the psychologist's career. *European Journal of Psychology of Education*, *29*(1), 63–80. <https://doi.org/10.1007/s10212-013-0187-0>
- Lally, J., Tully, J., & Samaniego, R. (2019). Mental health services in the Philippines. *BJPsych International*, *16*(3), 62–64. <https://doi.org/10.1192/bji.2018.34>
- Lambert, V. A., & Lambert, C. E. (2012) Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research*, *16*(4), 255-256. <https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5805>
- Lobien, P. (2019, November 6). *More psychologists needed vs. depression: Expert*. Philippine News Agency. <https://www.pna.gov.ph/articles/1085175>
- Locsin, B. (2021). *Online assessment in the time of quarantine* [Conference Session]. Psychological Association of the Philippines Clinical Afternoons, Philippines.
- Mercurio, R. (2021, August 20). *Philippines internet speeds continue to improve*, The Philippine Star. <https://www.philstar.com/business/2021/08/20/2121180/philippines-internet-speeds-continue-improve>
- Morling, B. (2018). *Research methods in psychology: Evaluating a world of information* (3rd ed.). W. W. Norton & Company.
- Musiat, P., Goldstone P., TARRIER N. (2014). Understanding the acceptability of e-mental health--attitudes and expectations towards computerised self-help treatments for mental health problems. *BMC Psychiatry*; *14*(109). <https://doi.org/10.1186/1471-244X-14-109>

- PARiConnect. (n.d.). *Online assessment made easy*. <https://www.parinc.com/Overview#752554-flexible-administration-options>
- Park, E. (2013). The adoption of tele-presence systems: Factors affecting intention to use tele-presence systems. *Kybernetes*, 42(6), 869-887. <https://doi.org/10.1108/K-01-2013-0013>
- Pearson Assessments. (2021). *Telepractice and questionnaires or rating scales*. <https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/telepractice/guidance-documents/telepractice-and-questionnaires-or-rating-scales.pdf>
- Peterson, D. R., & Bry, B. H. (1980). Dimensions of perceived competence in professional psychology. *Professional Psychology*, 11(6), 965–971. <https://doi.org/10.1037/0735-7028.11.6.965>
- Philippine Psychology Act. (2009). *An act to regulate the practice of psychology creating for this purpose a professional regulatory board of psychology, appropriating funds therefor and for other purposes*. Congress of the Philippines. [https://www.prc.gov.ph/sites/default/files/Psychology%20-%20Board%20Law\\_0.pdf](https://www.prc.gov.ph/sites/default/files/Psychology%20-%20Board%20Law_0.pdf)
- Porcalla, D. (2020, December 28). *Philippines internet 'second slowest' in Asean, ranks 110th worldwide*. The Philippine Star. <https://www.philstar.com/headlines/2020/12/28/2066612/philippines-internet-second-slowest-asean-ranks-110th-worldwide>
- Professional Regulation Commission. (2017). *Adoption and promulgation of the code of ethics and professional standards for psychology practitioners in the Philippines*. <https://www.prc.gov.ph/sites/default/files/PSYCHOLOGY-CodeEthics-2017-11.pdf>
- Psychological Association of the Philippines. (2009). *Code of ethics for Philippine psychologists*. [https://pap.ph/downloadable/PAP\\_Code\\_of\\_Ethics\\_for\\_Philippine\\_Psychologists.pdf](https://pap.ph/downloadable/PAP_Code_of_Ethics_for_Philippine_Psychologists.pdf)
- Psychological Association of the Philippines. (2020, April 18). *Guide for conducting telepsychology during the pandemic* [Image attached]. Facebook. [https://www.facebook.com/permalink.php?story\\_fbid=10156599735000388&id=148851815387](https://www.facebook.com/permalink.php?story_fbid=10156599735000388&id=148851815387)
- Sayegh, P. (2021). *Teaching assessment and implications for clinical training during COVID-19* [Learning Continuing Education Session]. 2021 American Psychological Association Virtual Convention.
- Stifel, S. W., Feinberg, D. K., Zhang, Y., Chan, M., & Wagle, R. (2020). Assessment during COVID-19 pandemic: Ethical, legal, and safety considerations moving forward. *School Psychology Review*, 49(4), 438-452. <https://doi.org/10.1080/2372966X.2020.1844549>
- Suhr, J. A. (2021). *Teaching cognitive and neuropsychological assessment during COVID-19* [Learning Continuing Education Session]. 2021 American Psychological Association Virtual Convention.
- Tarroja, M. C., Alcalá, M. A., Simon, P. C., & Sanchez, J. D. (2020). A review of psychological assessment practice in the Philippines: What do some practitioners say? *Philippine Journal of Psychology*, 53, 81-115. <https://doi.org/10.31710/pjp/0053.04>
- Venkatesh, V., Morris, M. G., Davis, B. & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Wright, A. J., Mihura, J. L., Pade, H., & McCord, D. M. (2020, May 1). *Guidance on psychological teleassessment during the COVID-19 crisis*. <https://www.apaservices.org/practice/reimbursement/health-codes/testing/teleassessment-covid-19>