Model of Relationship between e-Counselling Skills, e-Counselling Ethics and e-Counselling Limitations with Counselling Self-efficacy

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***Abstract*—Despite the increasing number of e-counsellors, there is a lack of studies especially in the Malaysian context that highlight the skills and practices among e-counsellors and how these are linked to their perceptions when providing e-counselling. This study identifies the relationship between e-counselling skills, e-counselling ethics and e-counselling limitations with counselling self-efficacy among e-counsellors in Malaysia. A total of 159 e-counsellors from various institutions in Malaysia participated in this online survey study. The respondents were selected using the simple random sampling method. The Counselling Self-Estimate Inventory was adopted, and three self-constructed scales were employed for data collection purposes. Correlation analysis found that e-counselling skills (r = 0.597, p < 0.001), e-counselling ethics (r = 0.201, p < 0.001) and e-counselling limitations (r = -0.511, p < 0.001) were significantly correlated to counselling self-efficacy. The structural equation model analysis confirmed the model of relationship between e-counselling skills, e-counselling ethics, e-counselling limitations and counselling self-efficacy. From the three dimensions, e-counselling limitations predicted counselling self-efficacy the best (β value = -0.60), followed by e-counselling ethics (β value= 0.56) and e-counselling skills (β value= 0.18). The findings imply that the extent of e-counsellors' perceptions on the limitations present in e-counselling play an important role to predict the variance in counselling self-efficacy among e-counsellors. Professional counselling bodies, supervisors and counsellor educators are urged to design a more comprehensive educational and training programme for counsellors. Both counsellor candidates and professional counsellors will benefit from this study as it provides insights for more effective implementation of e-counselling.**

***Index Terms*—Counselling self-efficacy, e-counselling skills, e-counselling ethics, e-counselling limitations.**

I. Introduction

Along with the rapid development of technology nowadays, people have experienced higher convenience in the ease of accessing internet services. The constant access to Internet and distant communication tools has enabled the majority of individuals in the 21st century to obtain information and seek for online serves regardless of time and geographical barriers. Online mental health services such as e-counselling have benefited from the expansion of application in online services and distant communication tools. Researcher [1] noted that mental health services first emerged in 1982 through online self-help support groups. Gradually, the globalisation of information and communications technology (ICT) and the use of the Internet for communication and information gathering had encouraged the development of e-counselling services in multiple areas [2]. Through these services, counsellors are able to provide counselling support through multiple mediums of ICT [3] such as virtual live sessions, instant text messaging, e-mails and phone call sessions.

e-Counselling, or more commonly known as online counselling, can be conducted either synchronously or asynchronously [4]. e-Counselling sessions which are conducted synchronously involves instantaneous communication between counsellor and clients in the virtual space, either through telephone calls or communication shared through various instant messaging or video-conference platforms such as WhatsApp, Telegram, and Zoom. Meanwhile, asynchronous e-counselling forms are conducted with time delay, where the counsellor and clients may communicate through e-mail messages, for instance [5]. Factors such as convenience and lower cost have made e-counselling more applicable and feasible for both counsellors and clients. e-Counselling can be conducted across geographical locations and time zones without requiring clients to be confined in a counsellor's counselling chamber [6], which means that clients do not need to leave their workplace or house to seek counselling help [7]. Hence, e-counselling can be exceptionally advantageous in improving the accessibility of counselling services to underprovided individual groups (e.g., youths, elderly people or physically impaired people) [8]. Clients who reside in remote areas [9] or who are not able to leave their home due to health concerns, physical constraints or difficulties in finding transportation [10], may find e-counselling services much more convenient compared to face-to-face counselling.

Individuals may feel hesitant or reluctant to seek face-to-face counselling sessions particularly due to stigmatisation against mental health issues [11].he anonymity in e-counselling sessions may facilitate in reducing pressure and anxiety among these individuals [12], hence providing more opportunities for them to seek counselling help through

Manuscript received March 21, 2022; revised April 29, 2022. This work was supported in part by the Ministry of Education under Fundamental Research Grant Scheme (FRGS) (FRGS/1/2018/SS05/UPM/02/2).

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any synchronous or asynchronous methods they find convenient.

The features of e-counselling have been proven to be more feasible compared to face-to-face counselling in some aspects. In 2019, the coronavirus disease (COVID-19) pandemic outbreak has restricted most social and in-person interactions and gatherings, which made e-counselling, at one point, the only available medium that connects the counsellor to individuals who require professional help [13]. As society becomes more complex and technologically dependent, the development of new methods in counselling should also be explored more [14]. However, little attention has been given in the Malaysian context which report counsellors' application of skills and ethical practices in e-counselling. Researcher [15] noted the need for more research to determine the practicality and efficiency of electronic counselling in Malaysia. An existing study [16] maintained that the overall quality of counselling services improved with a more positive perception among mental health practitioners on their counselling performances. Another study [17] posited that positive expectations and the perceptions on one's capabilities to complete certain tasks and overcome obstacles are linked to higher levels of self-efficacy. Counsellors who have high counselling self-efficacy may demonstrate more resilience, confidence and competency to carry out the required counselling actions despite challenges encountered. However, there has not been a comprehensive model of e-counselling for reference by e-counsellors so far [18]. Therefore, this study intends to emphasize the research gap and identify the relationship between e-counselling skills, e-counselling ethics, e-counselling limitations and counselling self-efficacy among e-counsellors in Malaysia.

II. Literature Review

A. E-Counselling

Online counselling or e-counselling is referred to as a counselling process that involves a professional counsellor meeting a client in a virtual space using electronic devices as the main medium of communication [5], [10]. Researchers [4], [19] have provided a comprehensive definition of e-counselling as any mental and behavioural health service that involves therapy, consultation and psycho-education sessions, delivered by a licensed practitioner to clients in a non-face-to-face setting through distance communication technologies such as the telephone, asynchronous e-mail, synchronous live chat, and videoconferencing calls. Meanwhile, another researcher [20] refers e-counselling as an ongoing, interactive, text-based, electronic communication between a client and a mental health professional with the aim to improve the client's behavioural or mental health.

While online therapeutic interventions such as e-counselling are able to complement and support other types of interventions, they are not substitutions to face-to-face therapeutic interventions. E-counselling applies distant technological tools which has become an appealing alternative method [5], [11] to communication between counsellors and clients from remote locations. Counselling sessions between counsellors and clients in an online setting are conducted without the need for in-person interaction [21]. Coincidentally, e-counselling is known also as e-mail therapy [5], e-therapy [12], [22], computer mediated communication (CMC) [23], internet-based therapy [24], cyber-counselling [25], cyber therapy [26], online or internet therapy [27], and cyber counselling [10].

Contrary to how its implementation is more publicised in recent years within the Malaysian population, e-counselling has, in fact, been introduced for decades in the Western population. The counselling process was often integrated with computer technology way before the emergence of Internet [6]. Computer software programs such as ELIZA and PLATO were used where clients interact with computers which generate automated responses [21]. In the 1980s, with the emergence of the Internet, clients began to communicate with human counsellors within the virtual space. Over the years, e-counselling has gradually taken many forms such as chat [23], [28], e-mail and telephone counselling.

B. E-Counselling Skills

While e-counselling is an alternative counselling method, it is not a replacement to face-to-face counselling [2]. Nevertheless, by integrating the features of ICT in counselling services, counsellors can enhance the overall quality of counselling services and encourage more flexibility through various modes of counselling services [29]. Previous studies have highlighted skills such rapport building and developing therapeutic alliances with clients in the online setting [4], [28] and in telephone counselling [30], [31]. A review study by [18] has noted various counselling skills as reported in existing studies. Aside from rapport building, skills such as reflecting [32]–[34], paraphrasing [33], [35], demonstrating empathy [35], asking open and close-ended questions [4], [33], and online literacy skills [6], [33], [34], [36] are more commonly applied by practitioners of online mental health and counselling services.

According to a study by [33], among counselling psychology students in Malaysia and Singapore, reflecting skills are essential in the e-counselling setting, especially when developing therapeutic alliance and rapport with clients. Research [32] added that both reflecting and summarising skills are especially beneficial to avoid fragmented discussions which can be evident in e-counselling sessions. The same study also noted that these skills are useful to apply when e-counsellors are restricted from fully expressing empathy. This is also true as demonstrating empathy and different kinds of emotions are fundamental to any counselling process, which includes e-counselling [35]. Apart from that, skills in asking open and close-ended questions are also most commonly applied among e-counsellors, which can be useful when communicating and building rapport with clients [4].

Through e-counselling sessions, e-counsellors may apply skills in structuring in the beginning of the sessions with clients. Researcher [36] asserted that the structuring skill is especially important to inform clients of the rights and responsibilities of both counsellor and clients, as well as the limitations which may be present in the counselling session

involving confidentiality and privacy, record keeping and emergency protocols. A study among qualified counsellors in Malaysia by [34] suggested that e-counsellors need to acquire appropriate information from clients through an informed consent process for possible cases of emergency such as suicidal attempts or self-harm. Hence, the structuring skill is essential for e-counsellors to acquire and apply in online sessions so that they can make proper arrangements and plans to avoid unfortunate events from not managing emergency situations more efficiently.

Furthermore, e-counsellors should acknowledge that e-counselling is in a different setting from face-to-face counselling, which requires additional skills unique to the virtual space. Hence, online communication and literacy skills such as language styles and use of emoticons [34], as well as speed and accuracy in typing and delivering written texts, are especially important in instantaneous chat and e-mail counselling [6], [10], [36]. E-counsellors are also expected to acquire at least basic knowledge and skills related to computer and technical features, especially for instances such as technical glitch, hardware problems and confidentiality breaches [32]. Moreover, due to the nature of online communication, the confidentiality and security of data exchanged between counsellor and clients need to be prioritised. Hence, by being technologically literate, e-counsellors can ensure effective communication and interaction with clients within the virtual space [36].

In order to apply these skills, counsellors should make sure that they undergo training to acquire the necessary skills in e-counselling which include technical competence [37]. This is done by attempting to master or improve their knowledge and skills related to features of technology, applications of e-counselling skills, and ethical practices in e-counselling sessions [38].

C. E-Counselling Ethics

The current challenge for counsellors is to impose ethical standards of practice or rules which are clear and practical when integrating new modes of counselling intervention [39]. Hence, proper ethical and legal considerations should be practiced in e-counselling with the intention to prevent harm for both clients and counsellors. These ethical considerations include counsellors' responsibilities to maintain confidentiality [40], [41] being accountable to licensing laws [42], [43], being aware of cultural and boundary issues [38], and the duty to warn and protect, as well as to obtain informed consent and credentials. Maintaining confidentiality becomes an ethical concern in e-counselling as online transmissions between client and therapist can cause threats to the confidentiality of data and conversation shared during the counselling session [1].

Another ethical concern for e-counsellors is their need to acquire adequate knowledge and experience regarding cultural differences to avoid language barriers with the clients [38]. The nature of the e-counselling setting may increase the tendency for counsellors to miss important clues and make incorrect assumptions regarding the client's cultural identity [44]. The lack of acknowledgement of cultural issues may subsequently affect the clients and limit the counsellor's credibility, which can lead to inappropriate counselling interventions [45]. Meanwhile, boundary issues occur when there is a misunderstanding regarding the nature of the relationship between counsellor and client. This is true as online communication tends to encourage familiarity and spontaneity [46] as opposed to professionality in the counselling relationship. The clients may interpret the availability of e-counselling as always open around-the-clock [47], and being instantly available and responsive [36] to clients at any time, which is not the case for e-counsellors. Therefore, cultural and boundary issues are one of the ethical concerns in e-counselling services, which compels e-counsellors to resolve these issues strictly with clients in order to avoid ethical misconduct.

Researcher [1] emphasised that counsellors should be competent in their selected practice modality and have sufficient education or training to declare their expertise to prevent professional malpractice. In Malaysia, the counselling field was acknowledged as a professional service where counsellors are required to take part in formal training according to the standard curriculum endorsed by the Malaysia Board of Counsellors [43]. Hence, fulfilling counselling training and owning a professional licensure indicates good ethical practices among e-counsellors. However, past studies show that most counsellors do not possess a high level of technological understanding of computers [48] nor specific training in psychotherapeutic contact in text-based setting [49], which are both important when conducting e-counselling services. The e-counsellor's competency and credibility may be questioned, hence, they need considerable skills to communicate and convey emotions and the main contexts of their messages accurately through the written words [50]. A qualitative study among registered therapists in UK by [13] noted "the need for robust ethical guideline and governance" in online sessions (p.5). Hence, despite having completed training in counselling licensure, a clear guidance to ethical e-counselling sessions are needed, as e-counsellors are expected to gain additional training specific to online counselling provision which includes knowledge and skills in computer literacy and online communication.

Furthermore, while face-to-face counselling allows counsellors to assess and take appropriate procedures when clients are experiencing psychological crisis (e.g. suicidal ideation and attempt) [51], the nature of the e-counselling environment may restrict e-counsellors from picking up signs of violence and harm [1]. This is an important concern for clients who suffer from extreme emotional outbursts or psychological disorders such as depression or anxiety as well as those who require immediate attention [51], especially for cases such as relapse or alarming reactions to triggering events. As [6] suggested, e-counsellors need to confirm and clearly discuss with clients during the informed consent process of the procedures and course of actions to be taken for emergency events such as child abuse or self-harm. Therefore, it is important for e-counsellors to assess clients' suitability and appropriateness to receive e-counselling intervention and their abilities to communicate with the counsellor in an online setting [52] Clients who are underaged or incompetent adults need assistance and parental consent and guidance to facilitate their communication with

e-counsellors. Hence, ethical practices in e-counselling also involve e-counsellors informing clients of emergency protocols and the potential risks and possible benefits of the proposed intervention.

D. E-Counselling Limitation

A study by [53] found that there are several limitations in e-counselling which include the loss of physical cues and gestures, mistrust due to loss of in-person contact, lack of attention from both client and counsellor, and poor internet connection. Past studies have suggested that e-counselling cannot fully replace conventional face-to-face counselling due to difficulties in establishing strong therapeutic alliances with clients in the absence of non-verbal information and messages [2], [27]. Non-verbal cues are essential in any counselling process as it takes a huge portion of the communication in the counselling session, which enables the counsellor to explore the clients' feelings and thoughts [10], understand the issues brought up by clients, and assist them promptly [7]. Counsellors' acknowledgement or responses to emotional and non-verbal cues can improve communication as clients feel accepted and understood by the counsellor [54]. Unfortunately, the absence of non-verbal cues in telephone, text or email counselling may cause loss of communication with the client, which leads to communication becoming difficult to comprehend [55] and the lack genuineness and empathetic elements [31], [56].

Studies by [57] and [27] agreed that counsellors should consider how therapeutic conditions can be fostered in a non-physical setting along with the advent of e-counselling as an innovative medium for a therapeutic session with clients. Since e-counselling has limited human interaction [10], it may reduce the sense of intimacy, trust and commitment in the therapeutic relationship. Meanwhile, the absence of visual and verbal cues such as facial expressions, body language and voice intonation may lead to miscommunication [31], as either the counsellor or client may fail to capture the main context or story which the other attempts to convey. This, hence, may hinder e-counsellors from achieving effective counselling alliance with the clients [58]. Researchers [47] have asserted that critical emotions such as frustration and irritation are also lost during the e-counselling process. This is agreed by [58] as the lack of emotional cues can hinder counsellors from recognising the severity of clients' emotional state. Such circumstance may lead to inaccurate interpretation of clients' emotional and mental state as it is difficult for counsellors to make a behavioural assessment with the lack of access to their non-verbal messages.

Failure to form therapeutic alliance may be due to miscommunication, and vice versa, between the counsellor and clients. Miscommunication may occur in the online environment due to unfamiliarity with online language styles [2], while messages may be intercepted by potential hackers or uninvolved third parties [37]. These instances are possible if counselling sessions are conducted without proper security measures. Barriers in online languages and communication can become challenging to practice e-counselling [59], especially in text-based counselling. Communication through written texts and messages can lack a supportive and empathic tone [26], or empathetic statements may be misunderstood by the clients [31]. This may cause misinterpretation of the real messages that the counsellor or client intends to convey. Some words may be perceived or appear to be harsher than initially anticipated; this is true as different individuals may have different understandings and responses to written texts compared to when the same messages are conveyed verbally [60]. In certain cases, overly-sensitive individuals who tend to subconsciously alter facts and events might misinterpret [61], hence the misunderstanding can affect the counselling relationship [31].

Lack of access to internet and the use of technological tools may also pose limitations to e-counsellors. A study by [62] showed that not all students have full support and sufficient equipment for e-counselling services at home during COVID-19 due to weak or limited internet access, and the lack of electronic devices such as laptops, smartphones, and other related gadgets. The success of e-counselling is partially measured by client satisfaction [63] and technological competence from both the counsellor and client, which is very important for online mental health practitioners to consider when providing long-distance counselling services [32]. Previous studies have indicated that counsellors express their concerns regarding their lack of confidence in technological knowledge and skills [64], [65] as it has become challenging for them to keep updated in learning new software and technical procedures as well as managing related administrative issues [65]. This is especially true as the online culture and its development is dynamic and fast-evolving [66]. A lack of proper training on internet and technology provisions may further cause counsellors to feel less competent and hinder the therapeutic process with clients [58]. Hence, e-counsellors who lack the knowledge, skills and training specific to the e-counselling setting may find online sessions to be more challenging as they attempt to build rapport and therapeutic communication with the clients.

Another issue associated with e-counselling is time delay. Time delay refers to delayed or lagged responses between the counsellor and client which is common in text-based counselling, and can be detrimental in maintaining therapeutic communication exchanges [31]. In asynchronous e-mail counselling, there may be some time taken to send messages and receive responses for communication to be established. Hence, responses from both sides which are delayed for an extensive period may lead to little text exchange between the counsellor and client [31]. Instant messaging or live chat can also become problematic when there is poor network connectivity that results in lagged responses and can cause uncertainty to counsellor and client as to whether the opposite party is disconnected from the online session [55]. This can also lead to discontinuity and discomfort in the counselling relationship as the online interaction is disrupted by delayed responses.

E. Counselling Self-efficacy

According to [17], there are four major sources of information which influence individuals' self-efficacy when coping with challenges: i) performance accomplishments, ii)

vicarious experience, iii) verbal persuasion, and iv) emotional arousal. As individuals experience more successful attempts, observe others succeeding without adverse consequences, receive more positive feedback and feel less agitated, they are more likely to have a higher sense of self-efficacy. Consequently, this will motivate them to persist in coping behaviours to achieve anticipated outcomes. Therefore, in this context, counselling self-efficacy may be represented as self-efficacy in manifesting counselling-related activities among counsellors while coping with the challenges experienced. More specifically, counselling self-efficacy represent the counsellors' own beliefs or perceptions of their own performance of counselling tasks and activities [67] while overcoming challenging situations .

According to study by [68], counselling self-efficacy acts as one of the main indicators in identifying the overall performances of counsellors and the quality of counselling services provided. Researcher [69] also noted that a high level of counsellor self-efficacy demonstrates more effective counselling activities. The same study suggested that counsellor self-efficacy acts as a primary mechanism between knowledge and effective counselling skills and actions. This implies that with high counselling self-efficacy, counsellors are able to implement their knowledge and skills with confidence, which enable them to overcome the challenges they may experience while doing so, hence improving their overall counselling performance. A number of existing studies have discussed counselling self-efficacy among counsellors in the school setting [70]–[72] counsellors-in-training [68], [73], and counsellors or mental health practitioners from various geographical locations [74]–[76]. However, despite the research conducted on counselling self-efficacy, little studies have been conducted that focuses on counsellors in an e-counselling setting .

One of the biggest obstacles for counsellors is in conducting counselling sessions over different modalities other than the traditional, face-to-face method. Depending on the needs of clients, counsellors may choose to implement video-conference, live chat or telephone counselling sessions in order to communicate with the clients. Therefore, counselling self-efficacy among e-counselling practitioners may be defined as how they believe in their own abilities and skills to exhibit required e-counselling actions and tasks despite the challenges experienced. According to [17], self-efficacy refers to the individuals' expectations of the knowledge and skills they acquire and their capability to perform the required tasks. This indicates that high counselling self-efficacy among e-counsellors indicates positive expectations on their own capabilities to execute the e-counselling tasks .

Very few studies have been conducted specifically on counselling self-efficacy among e-counselling practitioners. There are even lesser studies of the same topic in the Malaysian context. Although the application of e-counselling services has risen prominently in Malaysia in recent years, there is a lack of studies in the Malaysian context regarding the features of e-counselling services and the practices of e-counsellors in Malaysia. This is supported by [16], which noted the particular lack of research on therapists' perceptions and experiences on the use of technology-delivered interventions. [13] noted that the new social norms and restrictions has caused an increase in the implementation of e-counselling services among counsellors due to its convenience, hence calling for more empirical research to support the practice of e-counselling services. The increasingly challenging counselling tasks in the current era has urged counsellors to continuously adjust and improve their counselling performance, especially in terms of skills and knowledge. Researchers [77] claimed that individuals demonstrate a more proactive effect in overcoming challenges and stressful circumstances when their level of self-efficacy is high. Another researcher [74] suggested that counsellors with high self-efficacy are able to accomplish better outcomes from counselling sessions. In an e-counselling environment, especially, many unexpected circumstances may occur which urge counsellors to be more responsive and flexible when utilising various technological tools and solving any technical issues online. Therefore, high counselling self-efficacy among e-counsellors may indicate that they are more able and willing to carry out e-counselling tasks and activities despite the obstacles they encounter which may not be present in the face-to-face setting.

III. Research Objectives

Through this study, the researchers aimed to explore the relationships between e-counselling skills, e-counselling limitations and e-counselling ethics with counselling self-efficacy according to the following research objectives:

1) To identify the relationship between e-counselling skills (S), e-counselling ethics (E) and e-counselling limitations (L) towards counselling self-efficacy (CSE).
2) To identify the factors that contribute to counselling self-efficacy (CSE) in terms of e-counselling skills (S), ethics (E) and limitations (L).
3) To develop a model of relationship between e-counselling skills (S), e-counselling limitations (L) and e-counselling ethics (E) towards counselling self-efficacy (CSE) among e-counsellors in Malaysia.

IV. Methodology

A. Research Design

A quantitative approach was applied in this study using the descriptive and correlation method involving 159 e-counsellors in Malaysia. Descriptive analysis was conducted to describe and summarise the data retrieved while the correlational analysis was employed to explore the relationship between e-counselling skills, e-counselling ethics, e-counselling limitations and counselling self-efficacy.

B. Population and Sample

The targeted population in this study involved e-counsellors from various institutional setting (e.g., schools, universities, government offices and private sectors) in Malaysia who offer e-counselling services through any virtual medium such as online chatroom, telephone, e-mail and video-conference calls. The simple random sampling

method was applied to select subjects from a total of 799 e-counsellors identified as of June 2020. This method was chosen as it offers each member in the targeted population equal chances of being selected to participate in this study [78]. The simple random sampling procedure was carried out using the fishbowl method. Each member of the population was assigned number from 1 to 799, which was then randomly selected by the researchers until a total of 200 numbers were selected. By the end of data collection, a total of 159 was successfully analysed with the respondents' demographic characteristics as demonstrated in Table 1. From a total of 159 respondents, the majority are females (81.1%), and only 18.9% are males. Most of the respondents are Malay (77.4%), followed by Chinese (17.5%), 'Others' (10.7%), and Indian (4.4%). The age distribution among the respondents are almost consistent, such that most were at least 41 years old (30.2%), 25.2% were between 23 to 29 years old, 24.5% were between 30 to 35 years old, and 20.1% were between 36 to 40 years old. In terms of highest education level, most of the respondents owned a Bachelor's degree (59.7%), 36.5% owned a Master's degree and only 3.8% completed a PhD. The majority of the respondents have at most five years' experience in counselling (40.3%), 37.1% have six to 15 years of experience, 22.0% have 16 to 30 years of experience, and only 0.6% have at least 31 years of counselling experience. 72.3% and 64.2% of the respondents were registered and licensed counsellors respectively, while the rest are not.

TABLE I: RESPONDENTS' DEMOGRAPHIC PROFILE

Demographic variables		*f*	%
Gender	Male	30	18.9
	Female	129	81.1
Age	23 – 29 years old	40	25.2
	30 - 35 years old	39	24.5
	36 - 40 years old	32	20.1
	41 years old and above	48	30.2
Ethnicity	Malay	123	77.4
	Chinese	12	7.5
	Indian	7	4.4
	Others	17	10.7
Education Level	Bachelor's degree	95	59.7
	Master's degree	58	36.5
	Doctor of philosophy	6	3.8
Counseling Experience	5 years and below	64	40.3
	6 - 15 years	59	37.1
	16 – 30 years	35	22.0
	31 years and above	1	0.6
Registered Counsellor	Yes	115	72.3
	No	44	27.7
Licensed Counsellor	Yes	102	64.2
	No	57	35.8

C. Population and Sample

The research instruments utilised in this study comprises a total of five sections. The first section, section A, involved respondents' demography which include gender, ethnic group, age group, educational level, years of counselling experience, and counselling registration status.

Section B through Section D utilised the e-Counselling Skills Questionnaire (SQ), e-Counselling Ethics Questionnaire (EQ) and e-Counselling Limitations Questionnaire (LQ) which were constructed by the researchers for the purpose of data collection in this study. These instruments employed a Likert scale which ranged from 1 (strongly disagree) to 5 (strongly agree). The e-Counselling Skills Questionnaire (SQ) is a 34-item scale which consisted of seven sub-domains: i) structuring skill and rapport building, ii) exploration skill, iii) communication skills, iv) goal identification and attainment, v) problem-solving, vi) empathy and vii) multicultural skill. Sample items include "Although not face-to-face, I am able to use empathy to deepen client's understanding of the problem" and "Although not face-to-face, I am able to engage in clear rephrasing of what the client has expressed". Higher scores in this scale indicate that respondents are able to apply a range of counselling skills in the e-counselling sessions, while lower scores indicate their lack of ability to apply these skills.

The e-Counselling Ethics Questionnaire (EQ) is a 30-item scale which consisted of five sub-domains: i) benefit and limitation, ii) technology-assisted services, iii) law and statute, iv) technology and informed consent, and v) World Wide Web. Sample items include "When conducting e-counselling session, I always inform the client of the benefits of information technology application in the counselling process" and "When conducting e-counselling session, I always establish ways clients can contact the counsellor in case of technology failure". Higher scores in this scale indicate greater presence of ethical practices in e-counselling sessions while lower scores indicate otherwise.

The e-Counselling Limitations Questionnaire (LQ) is an 18-item scale which consisted of seven sub-domains: i) counsellor-client presence, ii) counsellor-client perception, iii) training requirement, iv) time delay, v) client and anonymity, vi) confidentiality and privacy, and (vii) cost. Sample items include "I feel there is a limitation in the e-counselling session when lack of voice intonation may cause misinterpretation in written discussion" and "I feel there is a limitation in the e-counselling session when there are no readily available courses that tackle the lack of visual cues in e-counselling". Higher scores in this scale indicate more limitations detected in e-counselling services as perceived by e-counsellors, whereas lower scores indicate lower limitations perceived.

Finally, section E adapted an existing instrument by [79], the Counselling Self-Estimate Inventory (COSE). The original author was contacted for permission to utilise the instrument for data collection purposes. The scale contains a total of 37 items, which comprised 18 positive items and 19 negative items. There are a total of 5 sub-domains in this scale: i) microskills, ii) process, iii) difficult client behaviours, iv) cultural competence and v) awareness of values. Sample items include "I am confident that the wording of my interpretation and confrontation responses will be clear and easy to understand" and "I am likely to impose my values on the client during the interview". The scale is ranged from 1 (strongly disagree) to 6 (strongly agree). A higher score in this variable indicates higher level of counselling self-efficacy.

D. Reliability and Validity of the Instrument

The e-Counselling Skills Questionnaire (SQ) and

e-Counselling Limitations Questionnaire (LQ) were constructed from a review of existing literature studies and instruments, while e-Counselling Ethics Questionnaire (EQ) was constructed from Section A.12 from the Counsellor Code of Ethics by the Malaysia Board of Counsellors (2016). All three scales had successfully undergone factor analysis prior to actual data collection process. A measurement is deemed reliable or consistent when similar results can be replicated in similar circumstances. To establish the reliability of the analysis of this study, the Cronbach's alpha value of less than or equal to 0.60 is considered not reliable, while a value more than 0.70 indicates that the instrument is highly reliable and acceptable. The reliability analyses for this research is presented in Table II.

TABLE II: RELIABILITY ANALYSIS OF RESEARCH CONSTRUCTS

Constructs	Alpha Cronbach	
	Pilot Study (N=33)	Actual Study (after CFA analysis) (N=159)
E-Counselling Skills	.97	0.70
C-Counselling Ethics	.98	0.79
E-Counselling Limitations	.88	0.85
Counselling Self-efficacy	.92	0.80

All research constructs for the variables in this study achieved highly acceptable and reliable values for both the pilot study and actual study. In the pilot study, the e-counselling skills construct has a Cronbach's alpha value of 0.97, e-counselling ethics has a value of .989, e-counselling limitations has a value of .88, and counselling self-efficacy has a Cronbach's alpha value of .92. In the actual study, after the Confirmatory Factor Analysis (CFA), the construct e-counselling skills has a Cronbach's alpha value of 0.70, e-counselling ethics has a value of .79, e-counselling limitations has a value of .85, and counselling self-efficacy has a Cronbach's alpha value of .80. All Cronbach's alpha values for the constructs during the pilot study and the actual study range from 0.70 and higher, which indicates highly reliable scales. Hence, the instruments involved in this study achieved the reliability and validity to measure the research variables involved.

E. Procedures of Collecting Data

Approval from the Ethics Committee for Research Involving Human Subjects in University Putra Malaysia (UPM) was received prior to the data collection process. An online survey form containing the research questionnaires was distributed to selected e-counsellors in Malaysia. A simple random sampling method was used to select potential respondents. Each of the members in the population was appointed a number from 1 to 799. Prior to data collection process, a list of e-counsellors' contact information was retrieved such that a total of 799 e-counsellors completed the list containing information such as full name, phone number and e-mail address for contact purposes. Using this information, the researcher selected 200 respondents at random, and contacted them individually through e-mail messages to disclose information regarding the research context and objectives. The email also includes a link which gives the respondents access to the online survey form. The respondents were contacted again after two weeks with an email reminder to complete the online survey. Later, due to the low responses collected, the respondents were contacted through their personal number via WhatsApp or Telegram. They were properly informed about the research contexts and objectives, together with a poster containing information about the research, and a link to access the online survey form. The online survey form containing the research questionnaire was developed using Google Form, which is an online survey tool widely known and used worldwide. Data collected was analysed using the Statistical Package for Social Sciences (SPSS) v.25 software, and Analysis of a Moment Structures (AMOS). At the end of the data collection process, a total of 159 responses was received and successfully analysed after the data cleaning process.

F. Data Analysis Procedure

All the data for this research were analysed through Structural Equation Modelling (SEM) using AMOS software version 25.0. The analysis process included two steps, which are CFA and Structural Model. The SEM has two main aspects, the measurement model and the structural model, where both models determine a complete model. [80] posited that the estimation of the measurement model must be done first before testing the actual matching model (fit). By applying the CFA approach, the data sample was tested on whether it can validate the proposed model and vice versa. The validity of the scale used, the item alignment to the operational definition to the research domain, and the validation of factor analysis were conducted for each variable. CFA was conducted to identify that the number of items included in the domain is in line with what is stated in [81].

The CFA analysis for each variable was developed based on the dimensions that were identified through the Exploratory Factor Analysis (EFA) process. A modification process was later carried out to ensure that each CFA model achieved model matching accuracy. Domain validity assessments were also conducted to ensure that all items loading have convergent validity. The three indicators used are factor weighting value (λ)> 0.50 [80], extracted average value (AVE) $\geq$ 0.50 [81], [82] and domain reliability value > 0.60 [80]. The purpose of this analysis is to identify whether all the variables used for this study are able to meet the model compatibility criteria separately. The analysis was followed by convergent validity to ensure that all item loadings are in compliance with the validity of the construct. Among the indicators used for the validity process are a) factor weighting value (λ)> 0.50[80] b) Extracted Average Variance Value (AVE) $\geq$ .50, [82] and c) construct reliability values (pc) > 0.60[80]. When convergent validity and AVE values reach the discriminatory validity values for each domain, this indicates that construct validity has been achieved.

The result of the CFA conducted has proven that this analysis has its own uniqueness compared to other statistical analysis. Among the advantages identified, as the validity is obtained, the researcher can construct a measurement model as a first step before constructing a structural model. This model will explain the causal relationship between the

variables measured simultaneously in one model. While the analysis predicts a model, it also confirms that each item found in the domain is empirically proven to accurately measure the model of the level of acceptance [80]. Therefore, the CFA conducted in this study is able to provide an indication of the validity of each item within the measured domain.

V. Result

The data were analysed using correlation and regression analysis using SEM. A correlational study was applied to test the assumption of whether there is a statistical relationship between the variables.

A. Correlation Pearson Moment

Table III presents a correlation matrix between e-counselling skills, e-counselling ethics, e-counselling limitations and counselling self-efficacy. The finding showed that e-counselling skills is positively correlated to counselling self-efficacy (r = 0.597; p < 0.001), e-counselling ethics is positively correlated to counselling self-efficacy (r= 0.201; p < 0.001), and e-counselling limitations is negatively correlated to counselling self-efficacy (r = -0.511; p < 0.001). All independent variables reported significant correlation to counselling self-efficacy. This indicates that with a higher application of e-counselling skills, greater presence of e-counselling ethics, and lower perceptions of e-counselling limitations, there is a higher tendency for an increase in counselling self-efficacy.

TABLE III: Coefficient Correlation Matrix between Research Variables

Variables	1	2	3	4
E-counselling Skills (1)	1			
E-counselling Ethics (2)	.181***	1		
E-counselling Limitations (3)	-.358***	.203***	1	
Counselling Self-efficacy (4)	.597***	.201***	-.511***	1

Along with the finding for the Pearson correlation, the next step for data analysis can be resumed, which applies SEM analysis using AMOS software to test the research hypotheses.

B. Structural Equation Modelling

SEM analysis was conducted to determine the relationship between e-counselling skills (S), e-counselling limitations (L) and e-counselling ethics (E) towards counselling self-efficacy (CSE), and produce a predictive model for the relationship between these variables among the e-counsellors in Malaysia. The analysis showed good compatibility value to verify the predictive model. The findings from the SEM analysis reported the compatibility value as follows: RMSEA=0.078, IFI=0.920, CFI=0.919, TLI=0.901, and Chisq/df=3.433 (Fig. 1).

The regression weights for each part of the coefficients showed that the null hypotheses were rejected, which means that the findings proved that there exists a significant relationship between e-counselling skills and counselling self-efficacy (β = 0.18, p < 0.001), e-counselling ethics and counselling self-efficacy (β = 0.56, p < 0.001), and e-counselling limitations and counselling self-efficacy (β = -0.60, p < 0.001). Hence, research objective 1 is resolved. The regression weights for each variable are presented in Table IV.

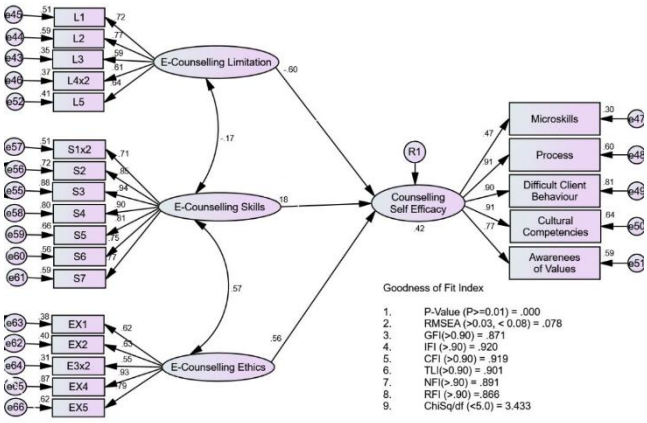

Fig. 1. Model of relationship between e-counselling skills (S), e-counselling limitations (L) and e-counselling ethics (E) toward counselling self-efficacy (CSE).

TABLE IV: Regressions Weights and Standardized Regression Weights for Each Variables

Dependent Variable		Independent Variable	Estimate	S.E.	C.R.	P
Counselling self-efficacy	<---	E-counselling skills	.179	.096	3.387	0.001
Counselling self-efficacy	<---	E-counselling ethics	.556	.420	10.243	0.001
Counselling self-efficacy	<---	E-counselling limitations	-.604	.154	-8.589	0.001

To identify the contribution of e-counselling skills (S), e-counselling ethics (E) and e-counselling limitations (L) towards counselling self-efficacy (CSE), a predictive model was created from the SEM analysis. Figure 1 shows the results of the predictive model from the analysis, which indicated that a good compatibility value was achieved, and it proved that e-counselling skills (S), e-counselling ethics (E) and e-counselling limitations (L) contributed to 42% of variance in counselling self-efficacy. Among the three dimensions, e-counselling limitations (L) reported the highest contribution to counselling self-efficacy (CSE) with a beta value of β=-0.60. This implies that the limitations as perceived by e-counsellors in e-counselling services played an important role to encourage a higher counselling self-efficacy. Meanwhile, e-counselling ethics (E) reported the second highest contribution with beta value of β=0.556. This means that as e-counsellors were engaged in more ethical behaviours in the e-counselling session, their counselling self-efficacy may also improve. Lastly, e-counselling skills reported the lowest beta value of β=0.18, which indicates that a higher application of e-counselling skills contribute to higher counselling self-efficacy among e-counsellors in Malaysia. This finding proves that all predictors are able to contribute to a variation in the dependent variable, therefore rejecting the null hypothesis and resolving research objective 2.

Finally, the goodness of fit indices from the SEM analysis present good values and satisfy all the requirements. This finding rejects the null hypothesis, hence proving that a

model of relationship between e-counselling skills (S), e-counselling ethics (E) and e-counselling limitations towards counselling self-efficacy (CSE) among e-counsellors in Malaysia has been established. This resolves research objective 3.

VI. Discussion and Implication

The aim of the present study is to identify the relationship between e-counselling skills, e-counselling ethics and e-counselling limitations towards counselling self-efficacy among e-counsellors in Malaysia. Analysis of correlation, regression and SEM showed that all the variables were correlated to each other. With increased application of e-counselling skills, greater presence of e-counselling ethics and lower e-counselling limitations as perceived by e-counsellors, there is a greater tendency for an increase in counselling self-efficacy. A model of relationship between the variables was also established, which proved the relationship between e-counselling skills, e-counselling ethics and e-counselling limitations towards counselling self-efficacy among this sample group. [13] indicated that online counsellors develop new skills and improve existing ones through the implementation of online counselling. As e-counsellors are able to attune their skills to the online setting, they overcome the gap between themselves and clients who require psychological support. This leads e-counsellors to experience an increased sense of enhancement of practice [13]. The ability of e-counsellors to apply and adapt a range of counselling skills in an e-counselling setting provides positive self-beliefs and increased confidence to undertake related tasks, especially if they experience positive outcomes from the event. [17] noted that positive feedbacks and experiences from the successful execution of desired tasks influence one's self-efficacy level. In parallel, the successful application of e-counselling skills, and positive changes witnessed in clients contribute to an increase in e-counsellors' self-efficacy, therefore supporting the relationship linking counselling self-efficacy with e-counselling skills in this sample group.

Ethical practices in e-counselling involve e-counsellors' obligation to warn and protect clients from self-harm and danger to others [41], as well as e-counsellors' assessment of clients' suitability and appropriateness to receive e-therapy [52]. Counselling requires the clients to understand the potential risks and benefits of an intervention proposed by the counsellor. Failure to inform clients of their rights, risks and benefits present in e-counselling intervention may lead to struggles in developing a therapeutic relationship and effective communication with the client. This leads to self-doubt or lack of confidence among e-counsellors in their own abilities to offer psychological support through e-counselling. The finding supports [17] the social cognitive theory which describes less successful attempts, negative feedback and emotional instability as contributing factors to lower self-efficacy as individuals struggle to cope with setbacks while executing required tasks. However, as e-counsellors become more knowledgeable and aware of possible issues which are often present in e-counselling, they may engage in more e-counselling practices which are ethical and in accordance to the counselling ethical regulations and guidelines. This may result in more positive perceptions, hence illustrating the link between e-counselling ethics and counselling self-efficacy.

Issues of boundaries in the online communication may also be an ethical concern among e-counselling practitioners. While clients expect counsellors to be online around-the-clock, counsellors are not obligated to do so, especially considering their workload and time constraints [83]. E-counsellors who receive a number of clients with this mindset may eventually feel frustrated and burnt-out from clients' expectations, therefore leading to lower perceptions on their competence level to carry out counselling work. [1] suggested e-counsellors to establish ground rules and a time frame for communication and responses in online sessions in order to maintain professional boundaries with the clients. Clients may be properly informed regarding the rights and responsibilities of both clients and counsellors, as well as ethical concerns and limitations present in e-counselling during the initial sessions.

E-counsellors find that there are several limitations present in e-counselling. This causes them to either avoid from carrying out e-counselling, or engage in coping behaviours in order to complete the desired tasks. The lack of non-verbal cues in the e-counselling process is often a concern among e-counsellors when conducting text-based counselling [2]. The absence of eye contact, voice intonation and body cues which are nonetheless present in face-to-face interaction makes e-counsellors' evaluation of clients' responses more challenging. This increases the probability of undesired outcomes, which leads to a negative impact on e-counsellors' self-efficacy [69]. This supports the present study which reported a negative correlation between e-counsellors' perceived limitations of e-counselling and their counselling self-efficacy. More involvement among online counsellors in providing online counselling sessions may solidify and improve their knowledge on certain aspects of online treatment [41]. This will improve their overall understanding of the best implementation of online counselling, and ultimately, they may find the limitations they previously perceived as challenging to be more manageable. As a result, they exhibit more confidence to perform e-counselling tasks. [70] echoed that experiences which counsellors had gained through formal and informal training, or through counselling sessions conducted, are linked to an increase in counselling self-efficacy. As e-counsellors gain more training and exposure, there is a greater tendency for an increase in their self-efficacy levels due to an increase in e-counselling skills application and a decrease in their perceptions towards limitations present in e-counselling.

Miscommunication can also interfere with the e-counselling process, which oftentimes occur due to e-counsellors' lack of familiarity with online language styles [2]. Unfamiliarity with online communication may cause e-counsellors to feel less confident with their abilities to create a therapeutic environment for their clients. On the other hand, as e-counsellors become good readers and writers [22], they may easily keep up with clients' various language styles and provide responses accurately and appropriately according to clients' respective cultural backgrounds and

issues highlighted. In turn, clients will feel more understood and empathised with, thus allowing a therapeutic process to take place. Subsequently, being competent in carrying out e-counselling tasks may improve e-counsellors' confidence and self-beliefs. Thus, it is necessary for counsellors to be well-informed, knowledgeable and up-to-date with the online communication culture to reduce unnecessary miscommunication [59], [65], while also seeking for training programmes which develop skills specific to e-counselling provisions.

The finding from the present study also indicated that e-counselling limitations contribute the best to the variation in counselling self-efficacy, followed by e-counselling ethics and e-counselling skills. As e-counsellors perceive more limitations present in e-counselling, they may experience lower counselling self-efficacy. This finding supports a previous study by [58], which described that a lack of training specific to online counselling may lead to counsellors feeling less competent to execute online counselling sessions. e-Counsellors who lack training and knowledge pertaining to online intervention may feel less confident and experience more negative moods when performing e-counselling tasks. [17], [84] on the social cognitive theory stated that stress, anxiety and despondent moods contribute to lower self-efficacy, especially if a particular individual associates these moods as signs of vulnerability. Appropriate training programmes and educational courses related to the aspects of e-counselling may assist e-counsellors to overcome the challenges experienced when conducting virtual sessions [85], which may improve their stress reactions. [13] suggests the need for e-counsellors to acquire additional training and equip more knowledge and skills related to computer literacy and online communication styles and features. e-Counsellors who receive the necessary training will have better understanding and awareness of how to best carry out each task. They become more resilient to challenging tasks, and demonstrate more competence and confidence in their counselling works.

Additional training focusing on online-based counselling must be made necessary for both trainee and professional counsellors. Consistent with [15], counselling training should provide opportunities for trainees to explore various counselling models and allow a more vast repertory of knowledge and skills. [41] noted the need for experienced counsellors and counselling students to receive training in the application of new technologies, and to stay abreast and be aware of the ethical issues present in conducting online counselling. Counselling educators, supervisors and professional counselling bodies such as the Malaysia Board of Counsellors need to endorse a more comprehensive guideline and counselling coursework which include more in-depth courses and hands-on training on various modes of e-counselling, including synchronous chat room, video-conference calls and e-mail counselling. More exposure to e-counselling and an increase in knowledge and skill among counsellors may improve their confidence levels [56], [64], which will facilitate their attempts to endure challenging experiences and strengthen more positive self-efficacy.

This study provides empirical findings that highlight the scope of the relationship between e-counselling skills, e-counselling ethics and e-counselling limitations towards counselling self-efficacy among e-counsellors. The emphasis of the current study among the Malaysian counsellors acknowledges an issue highlighted by [15] which describes the lack of information sharing and indigenous studies that document the Malaysian experience. Since this study was conducted without differentiating the mode of e-counselling which the respondents implemented (e.g. text-based counselling or video-conference counselling), future studies may conduct a similar study with a different sample group of e-counsellors who perform similar types of e-counselling. Live chat counselling requires e-counsellors to possess a unique skill set to compensate for issues such as anonymity and digital literacy gaps, which may be a different case in video counselling sessions. Future studies may also explore e-counsellors' social background and its influence towards their counselling self-efficacy levels. Existing studies have reported counselling self-efficacy in the conventional setting between counsellors from different genders, ethnicities, age group [86], education levels [87] and seniority levels [74]. However, there is almost no existing study which links socio-background aspects on e-counsellors with self-efficacy levels, especially in the Malaysian context. Lastly, although the present study established a model which links the variables, a qualitative study may warrant more understanding of the skills acquisition, ethical conduct and limitations perceived by e-counsellors, especially with the respect to their influences toward e-counsellors' self-efficacy.

VII. Conclusion

This study identified the relationship between e-counselling skills, e-counselling ethics and e-counselling limitations towards counselling self-efficacy, and the establishment of a model which predicts this relationship among e-counsellors in Malaysia. Few studies have been conducted specifically on this scope of study, more so in the Malaysian context. Hence, the findings from this study are contributable towards accumulating new information regarding the practices among e-counsellors. Furthermore, it was proven that there is a significant correlation between e-counselling skills, e-counselling ethics and e-counselling limitations towards counselling self-efficacy, while the regression analysis reported that e-counselling limitations contributed the most to the variation in counselling self-efficacy. The model of relationship was established, which successfully predicts the relationship linking these variables. The overall Goodness of Fit (GOF) analysis reported that all indices other than the chi-square value (i.e., the RMSEA, GFl, NFI, IFI, CFI, and TLI values) conformed to the standard values, indicating the appropriateness of the data obtained from the sample. The model proved the link between higher counselling self-efficacy with more applications of e-counselling skills, greater presence of ethical practices and less perceptions of e-counselling limitations among e-counsellors. These findings suggest the need for training and educational courses related to the features and practices in e-counselling. A more

comprehensive ethical guideline in e-counselling and an improved coursework or syllabus are necessary for both professional counsellors and counsellors-in-training to acquire more knowledge and skills on the best implementation of e-counselling services.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

All authors contributed to the design, development, and analysis of the study. Zaida Nor prepared the research protocol and supervised the research process. Both Zaida Nor and Alia Sarah conducted the fieldwork, data analysis and authored the paper. Yusni and Nor Aniza supervised the instrument development, and approved the final version of the paper. Siti Aishah provided the idea of the proposal and supervised the research process and activities. Lee conducted the research work and improved research writing.

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