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## Technology-Based Training with Social Work Students to Enhance Suicide Risk Assessment Skills During COVID-19


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## **Abstract**

The global COVID-19 pandemic has touched every aspect of human life. It has exacerbated how students continue to learn during a global health crisis. Specifically, training students to address mental health challenges (i.e., suicide assessments) during and post-COVID-19 is of the utmost importance. Previous research shows higher education institutions' responses to adjusting to previous world health crises, yet little is known about social work programs pivoting to technology-based training to educate BSW and MSW students to continue serving vulnerable populations in their field practicum during COVID-19. In this study, using the competencies attainment survey, the researchers at an east coast institution explored the confidence levels of social work students' technology-based training on suicide risk assessments and comfort with using artificial intelligence technology. The results showed a statistically significant increase in students' reports of increased self-confidence in their skills to conduct suicide risk assessments and self-confidence in the use of technology. The discussion includes implications for social work education.

*Keywords: social work, technology-based training, suicide, COVID-19, education*

## **Technology-Based Training with Social Work Students**

Global pandemics can cause significant challenges to the higher education process (Beaton et al., 2007) and the mental health of the global society (Pfefferbaum & North, 2020). Higher education institutions risk becoming outbreak centers due to the large populations of students, lack of distancing, and elevated levels of social contact (Van et al., 2010). As potential sites for transmission, higher education institutions may potentially negatively impact the larger community and educational process for students, faculty, and staff. Specifically, social work students are uniquely trained to provide behavioral health services, and pandemics interrupt their ability to be in the classroom and their internship settings to gain valuable experience to enhance skill development. While the profession has advanced in remote and online learning, the shift from face-to-face to a quick moment can disrupt and challenge ongoing training needs if programs are unprepared (Kumar et al., 2021). Hence, a need exists for social work programs to engage in practices that encourage flexible education options that provide a continuity of social work education—for example, remote online instruction, technology-based training, and artificial intelligence (AI) program utilization.

Due to the surge in the use of technology (Berzin et al., 2015; Wretman & Macy, 2016) and the increased need for flexible educational environments due to numerous factors such as pandemics, work requirements, employment landscape changes, the authors of this article social work program planned to implement technology-based training to help enhance students' skill development of suicide risk assessment during coronavirus (COVID-19). COVID-19 devastated the world in the spring of 2020 and shifted the training landscape for many social work programs. The arrival of COVID-19 created a strain on education efforts of social work programs and the mental health of the global society, particularly in suicidal ideation and other

mental health issues (Clay, 2020).

Educating social work students to conduct suicide risk assessments and treatment plans is at the core of the social work education system in challenging times like COVID-19. The increase in health challenges due to COVID-19 has increased stress reactions and reduced many of how people cope (Clay, 2020). Psychological, environmental, social, and spiritual stressors can increase the risk of suicidal ideation during pandemics, explicitly focusing on staying socially distant (McIntyre & Lee, 2020). Therefore, it is essential to focus on student skill development in suicide risk assessment during COVID-19 that could potentially expand to their field placements and practice behaviors post-graduation. While COVID-19 has changed how the world interfaces, it has also changed how education is delivered. Technology-based training allows social work students to continue developing essential practice skills in the wake of social distancing (Reamer, 2019).

### **COVID-19 and Suicide Risk**

The COVID-19 pandemic began in China in late 2019 and rapidly spread throughout the remainder of the world (Casella et al., 2020). The pandemic devastated millions worldwide, resulting in hundreds of thousands of deaths (Casella et al., 2020). The health complications of COVID-19 range from asymptomatic to acute medical issues characterized by respiratory challenges, organ dysfunctions, and sepsis (Casella et al., 2020). The COVID-19 global pandemic has changed how people will function forever. With the development of social distancing, quarantining, traveling among states and countries, the mandatory wearing of face masks, increased remote work and education, etc., the world may never be the same. While the change in human interfacing may have potentially curbed the disease from a public health perspective, the outcomes of suicide risk are high (Reger et al., 2020).

Suicide is a leading cause of death in the US and has increased by 30% in every state

(Centers for Disease Control [CDC], 2018). Suicide rates have increased in the past two decades and have shown to be the highest in the US since 1941 (Reger et al., 2020). Within the context of COVID-19, public health researchers predict that rates will increase as a result due to economic stress, social isolation, decreased access to community and religious support, barriers to mental health treatment, illness and medical problems, and overall uncertainty (Ornell et al., 2020; Sher, 2020). Increased psychological and environmental stressors may exacerbate mental health and physical problems in vulnerable populations and increase the risk of suicide. Researchers have found that helping professionals like social workers can continue to help manage suicide risk during pandemics and disasters that devastate society (Ornell et al., 2020). However, research also indicates that social workers frequently receive little to no suicide prevention and assessment training and feel unprepared (Osteen et al., 2014). It is essential for social workers to feel prepared and comfortable with their abilities to respond to suicide risk issues.

COVID-19 may increase suicide risk and challenge social worker practice behaviors on how social work students are trained, but with the use of technology, practitioners and students can continue to learn and train in an ethically safe way (Magill, Mastroleo, & Martino, 2022; Reamer, 2019).

### **Utilizing Technology-Based Training in a COVID-19 Era**

The advent of COVID-19 has created unique challenges in providing access to field placements to further social work skill development for students. Social work education during COVID-19 has expanded the capacity of social work programs across the US to engage in alternative strategies to meet the Council of Social Work Education (CSWE) core competencies. The use of various technologies (e.g., AI, virtual reality, online learning management systems, etc.) has expanded the ability of programs to continue to train students during COVID-19 at a distance. Social work students would benefit from the routine practice of conducting suicide

assessments. We must consider the ethics around meeting the students' needs to gain practice experience while not infringing on clients' rights (Barsky, 2017; Reamer, 2018). In some practice courses, faculty use paid actors who engage with students in scenarios where they can practice their assessment skills (Frantz, 2016) This is a helpful exercise, but depending on the classroom size and duration of the simulation, each student may have limited opportunities to conduct an assessment with the actor.

Additionally, depending on class size, developing role-plays via synchronous coursework during COVID-19 could be challenging for the student and instructor. An AI simulation program could provide students unlimited opportunities to practice their skills in a humanistic-ethical manner. Technology-based training and other education technology have soared over the past decade (Berzin et al., 2015). While social work institutions have expanded internet-based degree programs, very few are adopting technology-based training in the curriculum (Lopez, 2014).

National social work organizations such as the Association of Social Work Boards (ASWB), National Association of Social Workers (NASW), CSWE, and Clinical Social Work Association (CSWA) - engaged in a motivated collaboration of developing practice standards around social workers and social work educators use of technology (NASW, CSWE, ASWB, & CSWA, 2017). Section four of the standard describes social work education and supervision information. The standards have significant implications for the education of social work students on developing their use of technology and understanding prevailing practice, accreditation, and ethical standards (NASW, CSWE, ASWB, & CSWA, 2017).

Given the profession's commitment to promoting human and community well-being, CSWE has suggested technology and information literacy changes for the 2022 Educational Policy and Accreditation Standards (EPAS) (CSWE, 2019). The additional language will require that social

work programs prepare students to be “critical consumers of technology as well as informed developers of mechanisms to effectively employ and generate human-centered technologies to meet the profession's mission” (CSWE, 2019, p.3). The suggested change has come about after the release of survey findings from social work programs that indicate the use of technology for instructional methods. The new addition could strengthen the importance of technology-based training in social work, education, and practice.

Social work educators are uniquely positioned to help infuse social work curricula with the ethical and safe use of technology that expands student skills and confidence in conducting suicide assessment and treatment. Utilizing diffusion of innovation theory, social work educators can approach integrating technology-based training in the education process to help students develop skills they will adopt post-graduation.

### **Diffusion of Innovation Theory**

Diffusion of innovation theory (DIT) has been used in various social sciences. However, it originated in the field of communication to explain how products (theories or interventions) spread through a specific social system (Rogers, 2003). DIT structures an exploration of what helps an individual adopt new technology. Ultimately, DIT seeks to explain how, why, and at what rate innovations of technology can be transmitted through systems. According to Rogers (2003), “diffusion is the adoption of an innovation over time by the given social system.” DIT includes five established adopter categories: (a) innovators, (b) early adopters, (c) early majority, (d) late majority, and (e) laggards. Researchers show that people who are slated to be an early majority, early adopters, or innovators show attributes of understanding new technology, feel that they have a relative advantage, and develop competencies in use (Al-Jabri & Sohail, 2012). No studies to date use DIT to explore the adoption level of social work students' use of



technology in the education process. However, there are previous studies that have examined similar factors for the adoption of internet-based technologies in other fields (Koenig-Lewis et al., 2010; Liu & Li, 2010; Papies & Clement, 2008; Park & Chen, 2007) that suggest that early adoption is possible with increased knowledge, perceived advantage, and training.

Therefore, it is essential to understand if the use of technology-based training on suicide assessments and treatment is helpful for students if students feel an increase in their confidence in providing assessment and treatment; and their comfort with the use of technology. The ability to continue to engage in the education process during a global health crisis can be unnerving and challenging for students and educational institutions. This article aims to show how a school of social work shifted the learning experience during COVID-19 from in-person classroom instruction to technology-based training in simulations on suicide assessments and treatment planning in a remote learning environment. Technology-based training allows social work students to continue developing essential practice skills in the wake of social distancing.

### **Methodology**

Participants included 42 students from the BSW and MSW program at a small public institution in the New England area. The inclusion criteria included social work students participating in a field practicum in Spring 2020. IRB approval was obtained for students to participate in the simulation and to gather pre- and post-training data.

Students were provided access to the suicide risk assessment module on SIMmersion, LLC ([www.simmersion.com](http://www.simmersion.com)), a patented technology developed to enhance clinical skills in health care providers. SIMmersion allows students to have face-to-face conversations with actors (not animated avatars) prerecorded in an interactive roleplay and with integrated feedback. All simulations are PC computer-based. When the actor shares a detail of their presenting concern,

possible responses/questions are scripted and provided to the student. Students could interact with the actor through voice conversation or clicking on a script response. Students also have access to a teaching module that discusses the steps in suicide assessment. Also present was a “coach” (a virtual human avatar) who provided immediate non-verbal feedback to the students. The module has a built-in rating system that scores the student on various elements of the session: rapport, collaborative relationship, gathering details of the nature of the suicidal ideation, documenting the conversation, and discussing the next steps. A total score of 80% is considered a pass.

Students who completed the pretest, which gathered data on the confidence level in the various elements of suicides, were instructed to have at least three virtual conversations with the human actor in the suicide assessment module over 16 weeks. Also, each student had to achieve a passing grade of 80% at least once. If students did not pass their three attempts, they were asked to continue the training until they reached proficiency.

The faculty monitored student progress through the learning management system provided by SIMmersion. When the participants completed their assignment, they received a post-test survey. Data gathering was attained through survey monkey.

The survey was broken into three sections. The first section collects demographic information, such as the participant's age, gender, ethnicity, and enrollment year. The second section is a set of 13 questions that measure participant confidence with various elements of suicide assessment. These 13 questions ask participants to rank their confidence level with multiple elements of suicide assessment on a Likert scale with answer choices ranging from “1- not at all confident” to “7- completely confident.” The third section, utilizing the same Likert scale as the second, measures participant confidence in using AI in practice. Sections two and

three of the survey are presented in table one.

Forty-two students completed the pretest survey. Forty of these students went on to complete the posttest after the training. Participants did not have unique IDs that allowed analysis of changes to individual scores. Analysis of aggregate data was conducted using SPSS v. 27. Preliminary analysis assessed the distribution of scores on the two scales (confidence with suicide assessment and confidence with AI). The secondary analysis consisted of conducting dependent t-tests and analysis of variance to determine if there were significant differences in scores on the scales.

Table two shows the demographics of the student participants. Twenty-nine participants (69%) were between the ages of 18-29, with 11 (26.2%) 30-45 and two (4.8%) being 46-69. Thirty-three participants (78.6%) were female, and nine (21.4%) were male. No participants reported being transgender or having any other gender identity but male or female. Twenty-one participants (50%) were White, nine (21.4%) were Hispanic/Latin, and five were Black (11.9%). There were six ethnicities reported that were reported only once. These six unique ethnicities (14.3%) are included in the other category. One participant did not answer the ethnicity question. Fifteen participants (35.7%) were in their second year of the MSW program, 15 others (35.7%) were in their first year of the MSW program, and 12 (28.6%) were BSW seniors.

## **Findings**

### **Dependent Variables**

This study has two dependent variables: confidence with suicide assessment and confidence with using AI. Both of these variables are total scores that combine scores from other questions. Confidence with suicide assessment is the sum of the thirteen Likert scale questions in

the second section of the survey. Higher scores represent higher confidence levels with suicide assessment, with the maximum possible score being 91. Confidence in this level of AI is the sum of the five questions in the third section of the survey. Higher scores represent higher confidence levels with AI in practice, with the maximum possible score being 35.

The distribution of confidence with suicide assessment in the pretest was slightly skewed ( $Sk_2 = .216$ ). The data were transformed, by taking the square root of each score, to create a normal distribution of confidence with suicide assessment on the pretest ( $Sk_2 = .021$ ). Posttest confidence scores with suicide assessment were normally distributed ( $Sk_2 = .034$ ), as were both pre and post-test scores of confidence with AI ( $Sk_2 = .102$ ,  $Sk_2 = -.088$ ).

The mean confidence score with suicide assessment during the pretest was 64.69 (SD= 17.639). The mean confidence score with suicide assessment during the posttest was 77.62 (SD= 11.113), a 19.99% increase. This study examined whether this increase in confidence with suicide assessment was statistically significant using the dependent  $t$ -test. The pretest scores were transformed by taking the square root to achieve normality. The square root of posttest scores was used so that data were in the same unit of measure as pretest scores. The results of this dependent  $t$ -test are presented in Table three.

The mean confidence score with AI in practice during the pretest was 22.18 (SD= 6.328). The mean confidence score with AI in practice during the posttest was 31.68 (SD= 3.654), a 39.74% increase. This study examined whether this increase in confidence with AI was statistically significant using the dependent  $t$ -test. Both pre and post-test scores were normally distributed. The results of this dependent  $t$ -test are presented in Table four.

One aim of the study was to establish if there were significant differences in confidence with suicide assessment between enrollment years. There were statistically significant

differences in scores between enrollment years with the pretest (presented in tables four and five) but not with the posttest (presented in tables six and seven). Table five shows that confidence with suicide assessment was significantly lower for BSW seniors compared to MSW first-year and MSW second-year students during the pretest. A one-way ANOVA was conducted on pretest scores of confidence with suicide assessment. Results of Levene's test of homogeneity of variance showed no significant difference between groups with regards to the variance ( $F$  ratio= 10.311,  $df= 2$ ,  $p = .001$ ).

Table six shows the results of the Bonferroni post hoc test, which was conducted to evaluate pairwise differences between BSW seniors, MSW 1<sup>st</sup> year, and MSW 2<sup>nd</sup> year students during the pretest. The results of the Bonferroni test show that BSW seniors reported significantly ( $p < .01$ ) lower levels of confidence with suicide assessment than MSW 1<sup>st</sup> year and MSW 2<sup>nd</sup> year students during the pretest.

By the posttest, however, the statistically significant difference in confidence with suicide assessment disappears. Table seven shows statistically significant differences in confidence with suicide assessment among enrollment years during the post-test. A one-way ANOVA was conducted on posttest scores of confidence with suicide assessment. Results of Levene's test of homogeneity of variance showed a significant difference between groups with regards to the variance ( $F$  ratio= 2.805,  $df= 2$ ,  $p = .074$ ).

## Discussion

Practice education in schools of social work is one area where students in the Bachelor's or Master's program can improve the skills learned in their direct and clinical practice courses. Students get settled into the field practicum sites and are exposed to clients with various needs. In these settings, students are expected to complete evaluations, assessments, and treatment

plans, including suicide risk assessments. Experiences in the field practicum sites allow students to practice what they learned in the classroom. The nature of the practicum agency and the students' access to clients/patients may limit students' practice experience in the field. Even when students can access clients, conducting unnecessary assessments to enhance their practice skills would be unethical. One way a program can ensure uniformity in the student's learning experience is to provide opportunities for skill enhancement through technology. One of the goals of this study was to give students the space to practice their skills. Technology was used to supplement students' opportunities at their respective field practicum agencies. After reviewing various educational technologies, it was determined that SIMmersion, LLC was the right technology to assist students in enhancing their clinical skills.

The adoption and use of technology are essential to the education of social work students, especially during a worldwide pandemic and/or other disasters that disrupt the education process. The social work profession has continued to adopt and maintain the use of technology for practice in education (CSWE, 2019). Curriculum developers in social work programs can benefit from utilizing theory to help aid in the innovation, diffusion, and adoption of technology-based training that enhance student skill development (Scott & McGuire, 2017). Currently, no studies use DIT to explore the adoption level of social work students' use of technology to enhance skills learned in the classroom. According to Al-Jabri & Sohail (2012), early adopters or innovators show attributes of understanding new technology, feel that they have a relative advantage, and develop competencies in use. In this study, we wanted to explore whether using this technology-based training platform would lead to students' self-report of increased competence and self-confidence in their clinical skills.

The SIMmersion platform allows students to see the character's subtle nuances of non-verbal cues, facial expressions, and tone of voice. Some added benefits of using this platform included being able to complete the assessment as many times as possible to earn a score of 80 % to show competency. Using the SIMmersion platform, students were able to practice their suicide assessment skills at their leisure, in the setting of their choosing, and at any time of the day. When most students' experiences were hampered or restricted by COVID-19 shutdowns, the students in the study had access to SIMmersion and unlimited opportunities to practice their skills humanely and ethically.

The students in this study used the SIMmersion platform to complete a series of suicide risk assessments. This training was specifically chosen because suicide is a leading source of death in the United States. ([CDC], 2018). Suicide rates have increased over the past two decades (Reger et al., 2020). Even more alarming is the concern that COVID-19 has manufactured an environment with increased psychological and environmental stressors that some researchers (Ornell et al., 2020; Sher, 2020) predict may lead to increased suicide rates. As this study was designed before the news of COVID-19, the initial goal was to prepare BSW and MSW students to meet the existing community need. We could not have predicted COVID-19 or expected a spike in suicide rates. This training is essential because research (Osteen et al., 2014) has shown that social workers do not receive enough training on suicide assessment. To address these issues, we considered how technology-based training could be used to enhance students' skills humanely and ethically that was interactive and did not restrict their learning to a set timeframe or physical space.

## Implications

The study results indicated a statistically significant difference in the pre-test and post-test scores in the student's level of self-confidence when conducting suicide risk assessments. Although the study was not designed for students to use this technology entirely at home, that was the outcome of the spring 2020 COVID-19 shutdown. Despite this change, the students responded favorably about using technology as a learning tool. To that end, this study's implications for social work education are three-pronged:

1. Technology allowed students to continue practicing their skills even though they were no longer on a college campus or at their field practicum agencies.
2. As a result, students reported increased self-confidence in how to conduct suicide risk assessments.
3. This increased self-confidence report is especially important considering that the MSW I students who participated in the study have since graduated and may be caring for clients/patients experiencing suicidal ideations in the community.
4. The BSW and MSW I students who took part in the study were able to keep practicing their skills during COVID-19 and, therefore, may feel more confident in their ability to conduct a suicide risk assessment, whether in the field or at their next field practicum agency.
5. Students also reported feeling more comfortable using technology as a learning tool.

Schools of Social Work should consider a shift toward increased use of technology in academia to enhance student learning. The SIMmersion platform used in this study is among several types



of platforms that allow students the opportunity to learn through repetitive practice. This study was timely as the student participants were able to continue to sharpen their assessment skills during the Covid-19 shutdown compared to the rest of the student body. Integrating technology-based training in social work education can help students develop skills they can adopt into their practice post-graduation (NASW, CSWE, ASWB, & CSWA, 2017).

### **Limitations**

The data for this exploratory study were drawn from a small, convenience sample from one institution. Data were collected between March and May 2020. This small sample size represented less than half of the sample due to COVID-19. The campus was shut down at the start of the data collection period and remained that way throughout the study. Another limitation of the study is the students' self-report of their experiences. The limitations were few but impactful as a result of the COVID-19 shutdown. The result of this study is not generalizable, but future research with larger samples across multiple BSW and MSW programs and institutions may strengthen these results.

### **Conclusion**

COVID-19 has impacted life in the United States and around the world in more ways than we could have imagined at the beginning of 2020. COVID-19 has altered the way we live, the way we learn, and the way we provide care to our clients/patients. Public health researchers are predicting increased rates of suicides because of economic stress, social isolation, limited access to religious support, and barriers to mental health services (Ornell et al., 2020; Sher, 2020). This increased need for services may be a challenge for social workers, especially newly graduated social workers. Consequently, it is essential for social work students to feel prepared

and confident in their abilities to provide care and conduct suicide risk assessments. 42 students from the BSW and MSW program taking the field education courses in Spring 2020 participated in this study. Students took a pre-test and post-test rating their level of self-confidence in their ability to conduct suicide risk assessments and the use of technology as a learning tool. Students reported a statistically significant increase in both areas. Students who took part in this study reported increased confidence in their ability to conduct risk assessments and to use technology as a learning tool. Although this was a small sample of students from one institution, students reported increased self-confidence, which will help new graduates in their post-graduate practice.

In this study, technology-based training allowed students to continue to enhance their skills during the COVID-19 shutdown of campus and field practicum agencies. The diffusion of innovation theory in various social sciences explains how products (approaches or interventions) spread through a specific social system (Rogers, 2003). As a continued impact of COVID-19, many colleges and universities opted for online instruction in 2020 and 2021. Even though most social work programs have created online and hybrid courses, technology training tools like SIMmersion provides another dimension to the curriculum where students can engage in humane, repetitive practice to enhance their skills.

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**Table 1-Competency Attainment Survey**

| I. Student knowledge and skills in evidence-based suicide assessments using AI simulations   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| I am confident in  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. Identifying the difference between suicidal ideations and self-injurious behaviors?   |   |   |   |   |   |   |   |
| 2. Identifying when it is necessary to screen a client for suicidal ideation.  |   |   |   |   |   |   |   |
| 3. Identifying tools to screen for suicidal ideation?  |   |   |   |   |   |   |   |
| 4. Asking a client: Have you ever wished you were dead or wished you could go to sleep and not wake up?  |   |   |   |   |   |   |   |
| 5. Asking a client: Have you had any thoughts of killing yourself?   |   |   |   |   |   |   |   |
| 6. Asking a client: Have you been thinking about how you might do this?  |   |   |   |   |   |   |   |
| 7. Asking a client: Have you had these thoughts and had some intention of acting on them?  |   |   |   |   |   |   |   |
| 8. Asking a client: Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?        |   |   |   |   |   |   |   |
| 9. Asking a client: How many times have you had these thoughts?  |   |   |   |   |   |   |   |
| 10. Asking a client: When you have these thoughts, how long do they last?  |   |   |   |   |   |   |   |
| 11. Asking a client: Are there things – anyone or anything that stopped you from wanting to die?<br>Or acting on thoughts of committing suicide? |   |   |   |   |   |   |   |

|  |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|--|
|  |   |   |   |   |   |   |   |  |
| 12. Asking a client: Has there been a time when you started to do something to try to end your life, but you stopped yourself before you did anything? |   |   |   |   |   |   |   |  |
| 13. Asking a client: Have you taken any steps towards making a suicide attempt or preparing to kill yourself?  |   |   |   |   |   |   |   |  |
| II. Student skills in evidence-based suicide assessments using artificial intelligence (AI) simulation exercise  |   |   |   |   |   |   |   |  |
| I am confident in  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| 1. Using computer AI in my education process   |   |   |   |   |   |   |   |  |
| 2. My ability to use Artificial intelligence Simulations to practice suicide assessments   |   |   |   |   |   |   |   |  |
| 3. Practicing suicide risk assessment screenings via computer-assisted AI  |   |   |   |   |   |   |   |  |
| 4. My ability to enhance my skills in using this level of technology in social work  |   |   |   |   |   |   |   |  |
| 5. My ability to access interactive computer-assisted AI simulation in suicide risk assessments  |   |   |   |   |   |   |   |  |
| 6. The likelihood that I will seek opportunities to use Artificial intelligence Simulations type platforms to enhance my practice skills               |   |   |   |   |   |   |   |  |
| III. Professional Practice   |   |   |   |   |   |   |   |  |
| I am confident in  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| 1. My ability to conduct a suicide risk assessment for a client  |   |   |   |   |   |   |   |  |



**Table 2- Demographics**

| <b>Variable</b> | <b>Answer choice</b>     | <b>N (%)</b> |
|-----------------|--------------------------|--------------|
| Age             | 18-29                    | 29 (69%)     |
|                 | 30-45                    | 11 (26.2%)   |
|                 | 46-69                    | 2 (4.8%)     |
| Gender          | Female                   | 33 (78.6%)   |
|                 | Male                     | 9 (21.4%)    |
| Ethnicity       | Black                    | 5 (11.9%)    |
|                 | Hispanic/Latin           | 9 (21.4%)    |
|                 | White                    | 21 (50%)     |
|                 | Other                    | 6 (14.3)     |
| Year            | BSW senior               | 12 (26.8%)   |
|                 | MSW 1 <sup>st</sup> year | 15 (35.7%)   |
|                 | MSW 2 <sup>nd</sup> year | 15 (35.7%)   |

**Table 3- Results of Dependent *t*-Test for Confidence with Suicide Assessment (N=42)**

| <b>Variable-<br/>Confidence with Suicide Assessment</b> | <b>Mean</b> | <b>SD</b> | <b><i>t</i></b> | <b><i>P</i>*</b> |
|---|-------------|-----------|-----------------|------------------|
| Pretest (square root)                                   | 4.80        | 1.858     | -12.126         | .000             |
| Posttest (square root)                                  | 8.81        | .648      |                 |                  |

**Table 4- Results of Dependent *t*-Test for Confidence with AI (N=39)**

| <b>Variable-<br/>Confidence with AI</b> | <b>Mean</b> | <b>SD</b> | <b><i>t</i></b> | <b><i>P</i>*</b> |
|---|-------------|-----------|-----------------|------------------|
| Pretest (square root)                   | 22.18       | 6.328     | -7.797          | .000             |
| Posttest (square root)                  | 31.68       | 3.654     |                 |                  |

**Table 5- One-way ANOVA of Confidence with Suicide Assessment by Enrollment Year (pretest)**

| Source         | Sum of Squares | df | Mean Square | F      | P*   |
|----------------|----------------|----|-------------|--------|------|
| Between groups | 4412.32        | 2  | 2206.163    | 10.311 | .000 |
| Within groups  | 8344.65        | 39 | 213.97      |        |      |
| Total          | 12756.98       | 41 |             |        |      |

**Table 6- Bonferroni Multiple Comparisons- Confidence with Suicide Assessment by Enrollment Year (pretest)**

| Enrollment year                                    | N  | Mean  | SD     | BSW senior | MSW 1 <sup>st</sup> year | MSW 2 <sup>nd</sup> year |
|--|----|-------|--------|------------|--------------------------|--------------------------|
| Pretest confidence with suicide assessment (total) | 42 | 64.69 | 17.639 |            |                          |                          |
| BSW senior   | 12 | 49.08 | 15.594 | -          |                          |                          |
| MSW 1 <sup>st</sup> year                           | 15 | 67.67 | 16.216 | -18.58*    | -                        |                          |
| MSW 2 <sup>nd</sup> year                           | 15 | 74.20 | 16.216 | -25.12*    | -6.53                    | -                        |

\*p &lt; .01

**Table 7- One way ANOVA of Confidence with Suicide Assessment by Enrollment Year (posttest)**

| Source         | Sum of Squares | df | Mean Square | F     | P*   |
|----------------|----------------|----|-------------|-------|------|
| Between groups | 632.702        | 2  | 316.351     | 2.805 | .074 |
| Within groups  | 4060.529       | 36 | 112.792     |       |      |
| Total          | 4693.231       | 38 |             |       |      |

**Table 8- Bonferroni Multiple Comparisons- Confidence with Suicide Assessment by Enrollment Year (posttest)**

| <b>Enrollment year</b>                              | <b>N</b> | <b>Mean</b> | <b>SD</b> | <b>BSW senior</b> | <b>MSW 1<sup>st</sup> year</b> | <b>MSW 2<sup>nd</sup> year</b> |
|---|----------|-------------|-----------|-------------------|--------------------------------|--------------------------------|
| Posttest confidence with suicide assessment (total) | 39       | 77.62       | 11.113    |                   |                                |                                |
| BSW senior  | 12       | 71.58       | 10.535    | -                 |                                |                                |
| MSW 1 <sup>st</sup> year                            | 13       | 79.88       | 10.329    | -8.29             | -                              |                                |
| MSW 2 <sup>nd</sup> year                            | 14       | 80.47       | 10.783    | -8.890            | -.599                          | -                              |