

Development of Student Health Allies & Peer Educators Competencies and Its Effect on
Student-Athletes' Well-Being

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Problem Statement

Despite the prevalence of and increase in mental health issues among student-athletes, studies have consistently shown that student-athletes underutilized counseling services on campuses due to the negative stigma and overall lack of mental health literacy (Kaier et al., 2015; Wahto, Swift, & Whipple, 2016). Recognizing such issues, the NCAA has been providing mental health educational resources on its website (Mental Health, n.d.). The effectiveness of the resources, however, was unclear.

On the other hand, peer support has been proven to be beneficial in promoting individuals' well-being, and the integration of peer support in mental health services has progressed steadily (Brown et al., 2018; Myrick & Vecchio, 2016). Given this evidence, Marquette University's Athletics Department (AD) launched a Student Health Allies & Peer Educators (SHAPE) program to destigmatize mental health issues and to strengthen peer support among student-athletes. Although peer education is widely utilized as a health education method on campuses, the appropriate training of peer educator remains inadequate (Ahmed, et al., 2015; Delisle et al., 2016). The challenges facing peer educators include: a lack of understanding of the role, a lack of knowledge of resources, inadequate active listening skills, and burnout (Watson, Lambert, & Machin, 2016).

This pilot program aimed to evaluate the effectiveness of the SHAPE competency training to promote the student-athletes' well-being. The program addressed the following research questions: (1) How does participation in the SHAPE competency training affect the SHAPE's peer support ability? (2) How does SHAPE's peer support ability affect student-athletes' well-being?

Project Description

This program provided SHAPE competency training and peer support among student-athletes using well-being promotion web application. It included one in-person session and 3 virtual sessions of SHAPE competency skills training. The project started in July 2020 where the team prepared a revised IRB protocol that aligns with the COVID safety measures, developed training modules, and built Qualtrics online consent forms and survey, and the web application. We used a web application From January 2021 to April 20, 2022, to provide weekly check-in with SHAPE and their fellow student-athletes (partners). We had a final celebration ceremony and focus groups to collect feedback during the last session.

The first three sessions provide an overview of stakeholders' responsibilities, multicultural and ethical issues in providing peer support, and basic empathic communication skills among SHAPE. The last session consisted of learning the effective self-disclosure of mental health lived experience and maintaining healthy boundaries by SHAPE. Each session followed a basic structure in which training components are timed, and experiential activities were incorporated into specific skill building. Each session consisted of 75 minutes of activity with a maximum of 12 SHAPE participants per group.

SHAPE Competency Training

The training modules were prepared based on SAMSHA's core competencies (SAMHSA,

2018). The SHAPE competencies training will consist of the following topics:

- Responsibility and expectation
- Effective and empathic communication skills
- Ethical and multicultural issues in communication
- Effective and empathic communication via social media
- Self-care and self-compassion
- Effective self-disclosure of shared mental health lived experience and healthy boundaries

This competencies training emphasized: (a) Experiential learning activities where hands-on and repetitive skills trainings are beneficial to help individuals attain and sustain these competencies (Bosse et al., 2015); (b) utilizing SAMSHA core competencies guidelines, which is an evidence-based practice in peer support in behavioral health services (SAMHSA, 2018) to train the SHAPE; and (c) an multidisciplinary collaboration between Marquette’s AD, CECP, and CS. Balon et al. (2015) pointed out that multidisciplinary approaches added to the intellectual and fiscal resources in addressing the mental health needs of college students.

Table 1 is the project timeline and the detailed task descriptions.

Table 1
Scheduling and Task Descriptions

Session/Task/(Due)	Task Description and Execution
Initial Planning (July 31, 2020)	<ul style="list-style-type: none"> a. Prepare and complete training modules with a graduate assistant. b. Recruit students from SHAPE and other student-athletes as partners, coordinate meeting dates, and reserve training rooms. c. Prepare and obtain Internal Review Board (IRB) approval.
Session 1: Introduction; Overview of Responsibility and Expectation Baseline Assessment (September 30, 2020)	<ul style="list-style-type: none"> a. Provide an introduction to SHAPE training and an ice breaker activity. b. Provide knowledge about the benefits of becoming a part of SHAPE and the requirements for competencies training. c. Explain the expectation and the responsibilities of SHAPE and the competency skill trainer. d. Obtain signed Responsibility and Confidentiality Statement from participants. e. Obtain baseline competency assessment from all participants.
Session 2: Communication Skills; Ethical & Multicultural Issues (November 6, 2020)	<ul style="list-style-type: none"> a. Explain the roadblocks to effective communication and demonstrate effective communication skills. b. Discuss multicultural issues (privilege, discrimination, prejudice, and biases) and ethical issues in confidentiality, duty to warn, maintaining boundaries, and consultation. c. Develop individualized SHAPE self-care strategies. d. Provide mental health information (symptoms and strategies to support). e. Provide brochure on resources and referrals in mental health care.
Midpoint Assessment (December 1, 2020)	<ul style="list-style-type: none"> a. Conduct midpoint assessment on SHAPE’s competency skills. b. Conduct focus group of all participants to collect qualitative data on training satisfaction, strengths, and needed areas of improvement in the program. c. Show the mock-up of the SHAPE App and gather feedback from all participants.
Midpoint Program Evaluation	<ul style="list-style-type: none"> a. Summarize the data for midpoint assessment on SHAPE’s competency skills. b. Obtain feedback from the Assistant Director of Academic Services at the AD and the graduate assistant that facilitate the group trainings. c. Analyze the results from the midpoint assessment.

(January 8, 2021)	<ul style="list-style-type: none"> d. Develop the prototype of the SHAPE App and test the system. e. Deploy the SHAPE App to all participants starting from January 18, 2021. f. Complete and submit the midpoint report by January 31, 2021.
Session 3: Skill Demonstration (February 15, 2021)	<ul style="list-style-type: none"> a. Learn to demonstrate communication skills, such as active and non-verbal listening, along with elements of empathy, paraphrasing, and asking open-ended questions. b. Role play on how to respond empathically through different vignettes. c. Pair up the SHAPE participants and their partners.
Session 4 Skills Demonstration (March 26, 2021)	<ul style="list-style-type: none"> a. Demonstrate empathic responses to emotions and managing emotions b. Demonstrate effective self-disclosure of mental health lived experience and healthy boundaries. c. Demonstrate competencies in referring others to mental health resources.
Post Training Assessment (April 16, 2021)	<ul style="list-style-type: none"> a. Concluding ceremony for the participants. b. Conduct a focus group of all participants in order to collect qualitative data on training satisfaction, strengths, and areas of improvement. c. Conduct post-training assessment on competency skills and well-being.

SHAPE Web Application (SHAPE App)

The SHAPE App was designed as a simple, easy to use, secure, mobile and desktop friendly application. The SHAPE App enabled pairing of SHAPE and their student-athletes as partners. The student-athletes would be reminded to login to the app and complete World Health Organization (WHO) Five Well-Being Index (WHO-5) items survey each week from January 2021 to April 2022, during the Spring semester. SHAPE would be able to login to the app and view their partners' items scores and evaluated the well-being of their partners. The app provided simple and an intuitive way to visualize the five item scores during the Spring semester. This weekly check in also served as a safeguard for the participants' mental health. If the scores were trending in a negative direction, the SHAPE could discuss with their partners or refer them to appropriate counseling resources. The PI would contact the participant and did a brief assessment and referred the participants to mental health services as well.

We took measures to protect the privacy, confidentiality and security of the SHAPes and student-athlete's data. Similar to the proposed SHAPE App, the co-PI from CS has experience implementing a peer mentoring mobile application to evaluate the mental health of veterans. The QRF (Quick Reaction Force) Veteran and QRF Mentor apps are currently available on both Android and Apple iOS app stores (George et al., 2018).

Role Of Principle Investigators and Program Coordinator

This pilot program was a multidisciplinary collaboration project between Marquette's AD, the Department of Counselor Education and Counseling Psychology (CECP) and the Department of Computer Science (CS). Four research assistants in the CECP, supervised by the principal investigator (PI) provided the competency training of SHAPE to enhance their peer support skills. The PI was also available to SHAPE for clinical supervision as needed. A research assistant in the CS, supervised by the co-PI, designed and implemented the SHAPE App to evaluate student-athletes overall well-being. The Assistant Director for Academic Services at the AD assisted in coordinating the SHAPE recruitment and their partners from student-athletes.

Methodology and Data Collection

Procedure

The study evaluated the effectiveness of the SHAPE competency training by measuring SHAPE peer support ability and how the support affected the well-being of all participants. Program planning and evaluation occurred in the beginning of the project, in the midpoint, and at the end of the project period.

Research Designs

This program employed a mixed-methods design (Creswell & Creswell, 2017), including utilizing three measurement instruments, two focus groups of SHAPE, and two focus group of the non-SHAPE members who were also the partners of SHAPE members to evaluate the effectiveness of the program.

Measures

A demographic questionnaire (DQ) was used to collect information on age, gender, and race or ethnicity of the participants. Two measurement instruments were used to provide feedback on the effectiveness of SHAPE competencies training:

1. Mentoring Competency Assessment (MCA) was used to measure the impact of the training and as a tool for SHAPE participants' self-reflection. MCA is a 26-item survey that assesses skill gains across six mentoring competencies such as maintaining effective communication, aligning expectations, assessing understanding, addressing diversity, and fostering independence promoting professional development. It is a seven-point Likert type scale, with higher scores meaning better mentoring competencies. This instrument is chosen because it is a validated scale with high correlation of 0.49 – 0.87 among the six competencies, and all parameter estimates for the individual items were significant, with the standardized factor loadings ranged from 0.32 to 0.81 for mentors (Fleming, et al., 2013). Felming et al (2013) also recommended the usage of it to assess the efficacy of mentor training curricula targeting the six competencies covered by the instrument, which aligns with the training module for this pilot program.
2. World Health Organization (WHO) Five Well-Being Index (WHO-5) was used to measure SHAPE's partner's well-being. WHO-5 is a 5 items survey with a 6-point Likert scale that contains simple and non-invasive questions, with higher scores meaning better well-being. The scale has adequate validity as an outcome measure and has been widely applied across a variety of study fields (Topp et al., 2015).

Focus groups

Focus groups was conducted in the midpoint (November 2020) and post training (April 2021) to gain a deeper understanding of participants' experience and satisfaction in training, and peer support using SHAPE App. The participants were asked open-ended questions to collect data on training satisfaction, strengths, and areas of improvement for this pilot program.

Data Collection Methods

Data collection occurred at different time intervals over the course of the program period. The baseline of participants' competencies was established at the first session by September 2020. The competencies of SHAPE were measured again in November 2020 and April 2021 to compare the changes, as well as the qualitative data using focus groups. Further, student-athletes were provided the WHO-5 survey data weekly starting January 2021 until April 2021. The data collection timeline is explained in Table 2.

Table 2
Data Collection Timeline

Time	Time	Measures
Baseline Assessment	September 2020	DQ, MCA, WHO-5
Midpoint Assessment	November 2020	MCA, WHO-5
Post training Assessment	April 2021	MCA, WHO-5
Weekly SHAPE app	January – April 2021	WHO-5; mental health prompts

The following data analysis methods was employed for the program:

- To characterize the participants during the baseline, descriptive statistics was conducted on demographic characteristic of the participants using DQ.
- To investigate the effects of the training towards the competency of SHAPE participants at three points over the course of the year, Factorial Analysis of Variance (ANOVA) was conducted. Independent variables are (a) groups: experimental/control, and (b) time: baseline, midpoint, and post.
- To investigate the effects of the training towards the well-being of SHAPES' and their partners at three points over the course of the year, Factorial Analysis of Variance (ANOVA) was conducted. Independent variables are (a) groups: experimental/control, and (b) time: baseline and post.
- To further understand the SHAPE's and their partners' perception on their experience in this pilot program, focus groups was conducted. The qualitative data was analyzed using thematic analysis.

Table 3 provided a summary of the project methodology.

Table 3
Summary of SHAPE Competency Training Methodology

Research Question	Data Collection	Data Analysis
1. What are the characteristics of the participants?	Online demographic survey	Frequency distribution
1. How does participation in the SHAPE competency training affect the SHAPE's peer support ability?	Mentoring Competency Assessment (MCA)	Factorial Analysis of Variance (ANOVA) was conducted. Independent variables were (a) groups: experimental (Group A)/control (Group B), and (b) time: baseline, midpoint, and post.
2. How does SHAPE's peer support ability affect student-athletes' well-being?	<ul style="list-style-type: none"> • World Health Organization Five Well-Being Index (WHO-5) • Weekly (WHO-5) web app • Short wellness prompts 	<ul style="list-style-type: none"> • Factorial Analysis of Variance (ANOVA) was conducted. Independent variables were (a) groups: experimental (Group A)/control (Group B), and (b) time: baseline and post. • Average weekly score of WHO-5 • Thematic analysis of the responses
3. What are the SHAPE's and their partners' perception on their experience in this pilot program?	Virtual focus groups with semi-structured interview questions	Thematic analysis

Findings

Participants

A total of $N = 34$ students athletes participated in the study. The participants were divided into three groups: (a) Group A – SHAPE that received training; (b) Group B – SHAPE without training; and (c) Marquette’s student athletes. For the baseline data, the average age of the participants is 20 years old. Eighty five percent of the participants are female, more than 90% are White, and about 35% are in Track and Field, followed by soccer, lacrosse, and cross country (20%). See Table 4 the demographic information of the participants during the baseline data collection in Fall 2020 semester.

Table 4

Participants Demographic Information

	October	Group A (n=8)	Group B(n=8)	Group C (n=18)	Total (N=34)
Age: M (SD)		19.88 (1.13)	21.0 (1.7)	19.83 (1.29)	20.12 (1.27)
Age range		18-21	19-22	18-22	18-22
Sex					
	Female (%)	6 (75)	7 (87.5)	16 (88.9)	29 (85.3)
	Male (%)	5(14.7)	1 (12.5)	2 (11.1)	5 (14.7)
Race/Ethnicity (%)					
	White	7	7	17	31 (91.2)
	Black/AA	1	1	1	3 (8.8)
	Hispanic/Latinx	0	1	0	1 (2.9)

SHAPE Competencies Training Effects

Although there is mean difference between the groups across time, there is no significant difference effects on SHAPE peer support ability. A two-way analysis of variance yielded a non-significant main effect for the group, $F(1, 35) = .18, p = .67$. The main effect of time was non-significant, $F(2, 35) = 1.48, p = .24$. Similarly, the interaction effect was non-significant, $F(2, 35) = .36, p = .70$. The mean scores of SHAPE peer support ability are presented in the Table 5.

Table 5

Mean Differences Between Groups on SHAPE Peer Support Ability Scores (MCA) Across Time

Group	Pre		Mid		Post	
	Mean	SD	Mean	SD	Mean	SD
A	81.00	9.77	85.17	5.57	89.00	9.97
B	80.63	8.45	86.50	9.11	84.00	13.71

SHAPEs Wellbeing Effects

A two-way analysis of variance yielded a main effect for the time, $F(2, 35) = 4.06, p = .03$, such that the wellbeing score was significantly higher at the post training ($M = 19.27, SD = 2.55$) than at the pre-training ($M = 15.81, SD = 5.21$). The wellbeing score was significantly higher at the post training ($M = 19.27, SD = 2.55$) than at the mid-training ($M = 15.30, SD = 3.59$). There is no significant difference between midpoint and pre-training, and midpoint and post-training. The main effect of group was non-significant, $F(1, 35) = 1.68, p = .20$. Similarly, the interaction effect was not significant, $F(1, 35) = 1.46, p = .25$. The mean scores of SHAPE’s wellbeing scores are presented in the Table 6.

Table 6

Mean Differences Between Groups on Wellbeing Scores (WHO-5) Across Time

Group	Pre		Mid		Post	
	Mean	SD	Mean	SD	Mean	SD
A	13.63	5.29	15.00	3.74	19.37	2.83
B	18.00	4.38	15.75	3.86	19.14	2.41

Non-SHAPEs Wellbeing Effects

A univariate ANOVA yielded a non-significant effect for the time $F(2, 43) = .73, p = .49$. There is no significant differences in non-SHAPE members' wellbeing scores between pre, midpoint, and post training. The mean scores of non-SHAPE wellbeing scores are presented in Table 7.

Table 7

Non-SHAPE's Wellbeing Scores (WHO-5) Across Time

Group	Pre		Mid		Post		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
C	15.33	3.80	15.82	3.05	17.00	4.15	15.94	3.61

SHAPE's and Non-SHAPE's Perception on Their Experience at Midpoint

From the midpoint focus group, Group A participants who received the training indicated the highlights of experiences were awareness, connection, and self-care. The following interview excerpts are some of the narratives of the participants:

Awareness. Group A indicated that there was more awareness about the basic counseling skills, about how helping and supporting others are not about giving advice but listening to others.

“And I think obviously I've noticed ... more how other people listen. Like I like to be more conscious of where they facing me, did they interrupt me? I'm more aware of how other people are in those situations now.”

Connection. Having the master's graduate assistants, who were former student-athletes are beneficial to the participants. The participants mentioned it was helpful to hear from the research assistants' perspectives and they appreciated learning from the research assistants' experience.

“I think just knowing that all the advice you're giving us and just all the skills that you're teaching us, just knowing that you were like in our shoes once, so you can really relate. And just having that, I guess, relatable perspective, not that it like I don't trust people who aren't athletes, but like, it just makes you like have more trust I guess, and like the process of it all because we know that you've been in our shoes.”

Self-care. The participants pointed out the important of self-care while being a health ally and peer educator.

“I think in this time with everything going on, that's super important [to have compassion toward yourself]. And so I think [the group facilitator] emphasizing that really helps and it just remember that you got to take care of yourself, too.”

We also explored the expectation of SHAPE toward themselves. These keywords came up during the conversations about the peers relationship: *open, fluid, honest, invested, peer-to-peer, applying the skills we learn.*

“we are peers like. So I think an expectation is to not necessarily have it feel like a mentor/mentee and more just like you're talking to any other student or other student athlete. So try not necessarily put too much like emphasis on like those labels, because in the end, like we're all the student athletes.”

Here are some narratives regarding the expectations of non-SHAPE toward SHAPE. The participants expressed that they would like the SHAPE to be an *active listener* and *compassionate*. They also looked forward to building a *supportive relationship* that they could talk about mental health.

“It's really just listening and being attentive to how we're feeling, like how maybe they could relate to that.”

“Creating a friendship... creating a deeper connection with an athlete we don't know... mental health isn't really something you usually talk with your teammates about...”

We asked the non-SHAPE members regarding the expectations that they had toward themselves. The participants expressed the important of *being aware* of their mental health.

“I'm kind of just bringing my mental health to more of the forefront of my concern, because I feel like a lot of times, a lot of us athletes, too, kind of just push it off to the side and make excuses for it.”

The non-SHAPE participants expressed their fear of not be able to do the right things.

“I would just say my biggest fear is just not I wouldn't necessarily say like failing as a listener, but not being a good enough listener or just not finding ways for it to be, like, awkward...”

Male participants shared their hope of breaking the stigma of mental health.

“... help break that stigma around specifically men like male student athletes' mental health. Because like, I mean there's a lot of pushbacks when you try to get guys to talk about their mental health, because they don't want to show that they're like weak...”

Table 8 showed the summary of the midpoint focus group responses.

Table 8

Summary of Midpoint Focus Group Responses

Theme	Subtheme
SHAPE's experience	Awareness; connection; self-care
SHAPE self-expectation	Open, fluid, honest, invested, peer-to-peer, applying the skills
Non-SHAPE expectation toward SHAPE	Active listener; compassionate; supportive relationship
Non-SHAPE self-expectation	Self-awareness on mental health
Non-SHAPE fear and hope	Not being able to do the right things; men break the stigma

Feedback Before Launching the Web App

We asked the participants to provide feedback on the web app. They provided some helpful suggestions such as changing the presentations of the survey, providing a variety of short prompts on mental health questions, and sending the reminder during the evening time so they had a heads up to reflect on it before responding to the SHAPE web app. They shared that they would like to avoid the routine or going through the motion since they had been answering the covid-19 survey daily.

Participants' Post Training Experience

The overall analysis of the qualitative data produced the following themes based on the participants experience after this mental health promotion study.

Empathy. Participants shared that they have gained empathy along the way and have learned how to relate to others. One participant expressed how they understand others' perspective:

“Understand their perspective and how they feel.”

Connection. Many participants pointed out the additional connection that they had when the graduate research assistants who assisted in this study were former student-athletes. They found that their experiences were validated by the former student-athletes who were focus group facilitators.

“I also think it was easier to talk [to you, a former student-athlete] and like these breakout sessions with you or just someone that has gone through it.”

De-stigmatization. Participants have gained confident in supporting their peer in mental health. They also learned to refer their peer for additional mental health support. One participant has become more open to talk about difficult mental health issues with others.

“I feel a lot more comfortable just even bringing up and talking about mental health with peers.”

Another participant learned to the referral sources in relation to mental health.

“We definitely learned about a few more people or places that we could recommend.”

Advocacy. Because some of the participants are SHAPE, they already had the desire to advocate for the mental health promotion among the student-athletes. Their participation in the peer support competency training has strengthen their skills in supporting each other.

“...like advocating for mental health in some way to recognize that it's okay to have a not perfect week and make sure everyone is comfortable talking about that and realizing that they're not alone”

Challenges. Challenges have stemmed from using virtual and messaging platform that the participants were not able to connect deeper with each other. One participant expressed such concern:

“People can hide emotions over text so easy, so it would be way better to be able to get together in person with people.”

SHAPE Web App Findings

Participants' wellbeing scores were collected weekly from January 2021 to April 2021, for a total of 11 weeks. A univariate ANOVA yielded a non-significant effect for the groups, $F(2, 29) = 2.47, p = .10$. There is no significant difference in participants wellbeing scores (WHO-5) between Group A, B, and C. The mean scores of participants wellbeing scores are presented in Table 9.

Table 9
Non-SHAPE's Wellbeing Scores (WHO-5) Across Time

Group	A		B		C	
	Mean	SD	Mean	SD	Mean	SD
WHO-5	14.66	3.19	17.93	1.76	16.92	3.26

Participants responded to short prompts weekly to describe their wellbeing. The following themes emerged from their responses: social connections, optimism, and tiredness.

Social connectedness. Social connection played an important part in their wellbeing. They found their connection through their teammates, friends or family. One participant mentioned,

“I have had great few days with some really great people, and I am just so thankful and feel very blessed. One thing that went well is that I got to see my family this weekend. The sucky part is that leaving them never gets easier.”

Optimism. The fact that there were many adjustments that the participants had to do to adhere to the COVID safety measure, they were optimistic about their experience. One participant indicated,

“I am busy doing all the things I am invested in, I am surrounded by high quality, genuine people, who make me better, I am doing all things I love, life is good.”

Tiredness. It has been known that student-athletes have hectic schedules. The hectic schedule has taken an effect on their ability to sleep. One participant described,

“I’m very sleepy and didn’t get a lot accomplished.”

Conclusion

The results showed that the peer support training didn’t have an effect on the SHAPE peer support skills. However, we found a significant effect on the SHAPE wellbeing over time. Their wellbeing scores were significantly higher at the post training than at the pre-training and the mid-training. This is important especially this project occurs during the pandemic. The non-significant results of the peer counseling skills could be due to the small sample size. Furthermore, it might not be sufficient to conduct only four training sessions for the SHAPE to master the skills and to have an effect on wellbeing. We might need more than four sessions to build the peer support skills. Despite the non-significant results, the participants indicated the benefits of receiving training, especially they had opportunities to gain strong connection with the former student-athletes who were the graduate assistants of this project. Moreover, the student-athletes shared that they have increased their level of empathy and minimized stigma by being able to talk about mental health issues. They further described their mental health using the following elements: social connectedness, optimism, and tiredness.

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