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Qualitative Findings from an Experientially Designed Exercise Immunology Course: Holistic Wellness Benefits, Self-Efficacy Gains, and Integration of Prior Course Learning

Jennifer R. Curry
Louisiana State University, jcurry@lsu.edu

Laura Fazio-Griffith
Louisiana State University, fazio@lsu.edu

Russell Carson
Louisiana State University, rlcarson@lsu.edu

Laura Stewart
Louisiana State University-Baton Rouge, stewart6@lsu.edu

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Keywords
Experiential education, Efficacy of experiential learning strategies

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Jennifer Curry
jcurry@lsu.edu

Laura Fazio-Griffith
fazio@tigers@lsu.edu

Russell Carson
rlcarson@lsu.edu

Laura Stewart Louisiana State University Baton Rouge, Louisiana, USA
stewart6@lsu.edu

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Experiential education is a well documented approach to engaging student learners. This manuscript presents findings from a qualitative inquiry, specifically focus group discussions, investigating the perceptions of 28 student participants in a learning opportunity provided to a kinesiology class involving structured group exercise (marathon training). Findings revealed participants' gains in holistic wellness development, general and specified efficacy, and understanding and integration of course content.

Introduction

The efficacy of experiential learning strategies has been well demonstrated and documented (Holman & McAvoy, 2005). According to the Association of Experiential Education (2008), principles of experiential education practice include: (a) learners accountability for decision making, problem solving and outcomes; (b) learning is holistic in nature—involving the mind, body, and spirit; (c) interpersonal learning and relationships are nurtured; (d) learning involves some degree of risk, ambiguity, and uncertainty toward outcomes, (e) educators provide learning opportunities while fostering safety and well-being; and (f) learners and educators reflect on their own judgments and values as a result of successes and failures in the process of learning (www.aee.org). There are many kinds of experiential learning activities (such as service learning); however, within this scope, much of the literature and research on physical experiential learning involves wilderness and outdoor adventure with varying degrees of reported success among multiple variables and constructs.

For example, there are several reports on the relationship between self-efficacy and experiential learning (Fallon, Wilcox, & Ainsworth, 2005; Jones & Hinton; Hu, Motl, McAuley, & Konopack, 2007; Propst & Koesley, 1998). According to Bandura (1977) self efficacy is a person's determination about his or her ability to be successful. This determination affects the degree of effort an individual will put forth in overcoming difficult or arduous circumstances. Propst and Koesley found that participants in the National Outdoor

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Leadership Schools (NOLS) showed statistically significant gains in self-efficacy, which slightly diminished but remained significant one year later. Similarly, Jones and Hinton (2007) found positive increases in self-efficacy (as operationally defined by self-competence, role competence, and relational competence) for participants in a college freshman wilderness experience, though these gains were not statistically significant. Moreover, Hu and colleagues (2007) found positive correlations between higher self-efficacy and enjoyment of physical activity. In addition, Fallon and colleagues (2005) found positive correlations between high self-efficacy and physical activity engagement.

Beyond increasing efficacy, other mental health and relational factors have been studied by experiential educators and researchers. Specifically, Fallon and colleagues (2005) found a significant relationship between self-efficacy for physical activity and a positive sense of community. Daniel (2007) conducted focus group interviews and found that participants in an Outward Bound-type of wilderness expedition were able to articulate a greater sense of transcendent connection and spirituality as a result of the experience. A concurrent finding of that same study was that participants reported growth in overall holistic wellness—mental, physical, spiritual and social dimensions of self (Daniel). Kanters, Bristol, and Attarian (2002), found that Outdoor Experiential Training did lower graduate students' tension anxiety response while reducing feelings of depression and, Bell (2006), found that participants in a college wilderness pre-orientation program reported greater levels of social support when compared to groups of students not participating in the wilderness program.

Other positive outcomes have also been documented. Such outcomes include (a) reductions in participants' fears (Ward and Hobbs, 2006), (b) self-concept gains, (c) increased happiness and satisfaction (Larson, 2007), (d) use of problem solving, (e) development of technical skills, (f) use of successful small group behaviors, identifying and emulating role models (Paisley, Furman, Sibthorp, & Gookin, 2008), (g) teamwork, (h) respecting nature, and (i) learning how to do a new physical task such as hiking (Orren & Werner, 2007). However, contradictory to the aforementioned findings, other researchers report finding little or no statistical significance across variables for participants (Conley, Caldarella, & Young, 2007; Orren & Werner, 2007; Sheard & Golby, 2006).

For educators there are many positive reasons to implement experiential education in course design as a viable pedagogy. However, there are also cautions that should be exercised and challenges that exist for student/ participant learning. Beyond providing support and encouragement, instructors need to concomitantly ensure that students observe safety and that psychological perceptions of risk should be mediated so as not to be damaging (Berman & Davis-Berman, 2005). Further, instructors and facilitators should attempt to foster a sense of community between the students who participate in their courses. It is important to provide opportunities that allow participants to construct their own unique meanings of their experience and how they will apply the skills they have learned to their life (Berman & Davis-Berman; Conley et al., 2007). In order to promote the longevity of gains and transfer of benefits from experiential programs to other life domains, some researchers have suggested follow up instruction and discussion, continued practice, written and narrative reflections, and assisting individuals to develop personal plans or goals to continuing the learning process (Hatch & McCarthy, 2005; Holman &McAvoy, 2005; McClam, Diambra, Burton, Fuss, & Fudge, 2008). Finally, researching the efficacy and student outcomes is crucial to ensuring effective design of teaching strategies that truly engage students (Stefani, 2008). With this in mind, the current study was designed to examine students' perceptions of challenges and benefits of participation in a Kinesiology-Exercise Immunology course with an experiential marathon training element.

Methodology

Experiential Learning Course

The course was taught at a large, public university in the Southeastern United States. The course was designed to assist students in understanding exercise immunology by providing students with didactic course instruction while simultaneously training students to run in either a full or half marathon. In addition to training for a marathon, students tracked their own nutrition, amount of sleep, heart rate, blood pressure, saliva collection, and body composition (all are indicators of immune functioning).This was as a laboratory portion of the course. Therefore, students received instruction on immunology, laboratory work to track immunology indicators, and trained for a marathon in order to better understanding how endurance training personally affects individual athletes. Students' physical fitness was estimated by having them perform a 1.5 mile run/walk test under the supervision of the course instructor. From there students were placed in training groups and were given a training schedule.

Ethical Considerations

Due to the critical nature of physically training for a marathon, special ethical considerations were made to ensure student safety in the learning process. Students enrolled in the course had medical clearance following a complete comprehensive physical from a licensed medical doctor. Students were given the opportunity to participate in a focus group, after the course concluded, to discuss their process and perceptions of participating in the course. Informed consent was obtained for students choosing to participate in the focus groups.

Participants

Participants (n=28) were students enrolled in a Kinesiology-Immunology course. There were a total of 33 students in the course making participation in the focus groups 76%. Participants were in different collegiate year categories including sophomores (n=6), juniors (n=6), seniors (n=12), and graduate students (n=4). No freshman chose to participate in this study. All of the participants were White, non-Hispanic. While the greatest number of participants were Kinesiology majors (n=17), there was a variety of college majors from other areas including: Biology, Finance, Sports Management, Pathobiological Sciences, Exercise Physiology, Chemical Engineering, and History. Participants were both male (n=6) and female (n=22) and ranged in age from 19 to 26 years old (M=22). In regards to exercise participation, 19 of the participants ran a marathon at the completion of the course, eight ran a half-marathon, and one abstained from running due to a sports related injury.

Procedures

Students signed up for one of four focus group sessions (two morning sessions, one afternoon, and one evening). Sessions lasted 1-2 hours. All groups were interviewed by the first author, an assistant professor of counseling, who did not have responsibility for instructing in the Kinesiology-Exercise Immunology course and who had no responsibility for evaluating students (grading). Groups were digitally recorded for subsequent transcription (Hollander, 2004). Focus group design was chosen due to the exploratory nature of the study and because the course instructor wanted to gain insight from the collective generation of ideas regarding further development of the curriculum for future course offerings (Breen, 2006; Stockdale, 2002).

In addition, focus groups may provide insights and richer data than might otherwise be obtained through more quantitative methods such as questionnaires (Cameron, 2005). Most often, homogenous groups are used in focus group research because they have previous and similar experience relevant to the topic--this enables the development of trust and rapport that manifests in depth and openness necessary for discursive process (Hollander, 2004; Mansell, Bennett, Northway, Mead, & Moseley, 2004; Smithson, 2000). The advantages of using focus groups for qualitative inquiry includes (a) having engaging dialogue in order to hear a variety of perspectives about the topic, (b) to encourage interaction and conversation between participants (Cohen, Sandal, Thomas, & Barton, 2004; Gates & Waight, 2007), (c) to empower participants to gain clarity on their unique views of the course and their beliefs, attitudes and feelings (Freeman, 2006; Ivanoff & Hultberg, 2006; Rossman & Rallis, 2003), and (d) to use language as functional and constructive (Smithson, 2000). Moreover, focus groups actively make meaning through immediacy of the interaction—participants are free to affirm, expand, or challenge the statements of others while stimulating each others thinking (Bergin, Talley, & Hamer, 2003; Cohen, et al). In addition, the first author kept field notes and reflective memos for use in data analysis in particular regard to group process as recommended by Stockdale (2002).

Data Analysis and Trustworthiness

The focus group interviews were recorded and, after completion of all groups, they were listened to in their entirety by the first and second author. Each of the focus group interviews were manually coded. Coding involves "differentiating and combining the data you have retrieved and the reflections you make about this information" (Miles & Huberman, 1994, p. 56). Coding can be used to expand, transform, and reconceptualize data, opening up more diverse analytical possibilities (Coffey & Atkinson, 1996). Specific coding procedures included: axial and selective for more effective data analysis. Axial coding was used to showcase the relationship among the categories and subcategories retrieved from the information that was connected to the study. This process assisted the authors in identifying specific themes and patterns as they continued to emerge and assign meanings to categories and subcategories. Selective coding procedures were used next to further specify the themes and patterns that emerged during the focus groups. According to Miles and Huberman(1994), selective coding involves refining and selecting dominant themes and patterns while seeing regularities in the data emerge. Additionally, the first author summarized the key ideas following the focus groups, which provided central ideas for the data analysis. The coding of the key themes and patterns were identified based on recorded data. All four focus groups supported the themes and patterns that were present in each individual group. The coding methods allowed the authors to fully describe categories and exhaust their full potential. The coding methods assisted the authors with the final data analysis that consisted of a codification of emerging themes, quotes, checking and refining themes, and collapsing similar themes into the major premise of the data (Stockdale, 2002).

Findings

Three major thematic categories emerged and, within each category subthemes were identified. The major themes were (a) participant gains in overall holistic wellness, (b) gains in self-efficacy, and (c) better understanding and integration of course content. We will report findings by each of these main theme categories and will include subthemes with representative, participant quotes.

Theme A: Participant Gains in Overall Holistic Wellness

This major thematic category included physical, mental, and spiritual benefits of participation. According to Myers, Sweeney, and Witmer (2000), holistic wellness refers to the interdependent nature of physical, mental, social, and spiritual health—all of these systems interact with and influence each other. In summation, a positive change in one area (such as physical health) will positively affect other areas. This was supported in comments made by participants indicating that their overall holistic wellness had improved as a result of this experience.

(1) In regard to physical health, participants reported changes in body shape, endurance and strength. They also reported understanding the relationship between rest, nutrition, pain and physical performance. Some examples of various participant quotes about physical health include:

" I used to be tired all of the time. Now that I exercise I sleep better at night and I get more done during the day. I also started eating right."

"I've learned that this one life style change makes a huge difference, I had never run like this…I mean, my body changed…I learned that what I eat makes a difference in how I run so now I eat much healthier and I became so much stronger."

"I got injured and had to only do the half-marathon instead of the full but it taught me to listen to my body and what I can handle".

(2) Reported mental health benefits were reductions in overall stress and use of exercise as a positive coping strategy for dealing with depression, stress, and anxiety. In addition, participants noted positive changes in self-esteem or self concept.

"Running has become stress relief for me, so no matter what career I choose I think it will be an important part of my life in balancing work, family, and everything I do in life."

"I learned that it is all about your attitude, staying positive when you have a setback or when you're stressed out. Attitude is everything."

"When you achieve something like this, your self esteem just sky rockets. I feel good."

"Running definitely relieves stress. I don't feel nervous, sad, stressed—I just feel like everything is going to be okay. It's like a sense of peace."

(3) Social wellness benefits included curative factors based on group participation such as (a) a sense of belonging (group cohesion); (b) interpersonal learning and development of social skills; (c) feelings of hopefulness; (d) increased altruistic and empathic orientation; and (e) increased universality—the feeling that other people understand and are also coping with the challenges or difficulties one is facing (Yalom, 1985).

(a) The cohesion that was developed during this course by the participants played an integral part in the participants reaching their individual goals. The participants felt supported and connected both emotionally and socially to their classmates. One participant described the atmosphere as "family like":

"In this class we came together as a family in the end. Everyone worked hard and trained together and ran the same distances..The support was a family-like support

for everyone involved in the class."

(b) interpersonal learning and development of social skills:
This benefit included a reported increase in social skills and an awareness of how one functions within the group setting.

"The most important aspect of this course for me was becoming part of the group. I was not feeling like an outcast anymore. I was becoming more social in all aspects of my life like work and school."

"I've learned how to be a better friend…especially with people in this class."

(c) feelings of hopefulness:
Hopefulness is illustrated by the participant awareness and knowledge of support and encouragement as he or she struggled to finish the marathon. The "hope" is found in one's willingness to succeed based on teammates' insistence that he or she could complete and fulfill this goal.

"I heard three people cheering for me. I heard their voices and I could distinguish exactly whom of my teammates the voices belonged to. Their encouragement helped me finish the last three miles of the 26 miles. When I heard them, I knew I could do it. Teammates help you succeed, that is what they do."

(d) increased altruistic and empathic orientation:
Altruism refers to unselfish interest in promoting the concerns of others without thought of personal gain, it may be considered the purest form of caring (Robinson & Curry, 2006; Eisenberg, Guthrie, Murphy, Shepard, Cumberland, & Carlo, 1999). This social wellness benefit depicts this unselfish caring over self-interest behaviors.

"I really wanted everyone to succeed, I wanted to be there and encourage them to meet their goals…their success became important to me, mainly because I knew how hard they had all worked."

"I was exhausted, tired, wanted a shower…starving…but what I wanted the most was to see them cross the finish line, to be there to congratulate them. Once you've trained with other people, you just--you care so much about them and their goals."

(e) A sense of increased universality is the feeling that other people understand and are also coping with the challenges or difficulties one is facing (Yalom, 1985). A sense of sharing a common goal--or common challenge--increased the participants' sense of universality and overall social wellness.

"*You knew when you were hurting or having a bad day that other people had been through that, too. And that kept you going. Sometimes if you saw others having a bad day you would share with them the difficulties you had and it made you feel like you weren't alone in your problems."*

(4) Spiritual wellness benefits included a reported sense of transcendent connection with other runners, as well as calling on help from a higher power in order to persevere through the challenges of completing the half and full marathon. These findings were similar to

those reported by Daniel (2007).

"For me it was very spiritual, it taught me to pray more. Prayer got me through the marathon."

"There were points in the race when I was by myself and I thought, okay God, it's just you and me now. And I knew I wasn't alone. I would see the trees and think 'Oh, there you are!'"

"I kept seeing this guy with a shirt that said 'I can overcome all things through Christ who strengthens me'… and I thought 'Thank you, God', because I saw it at a time when I needed it most."

"Spirituality brings humility to your running. Like, thank you God for this opportunity. It is a privilege to run…there really are people who can't run.
You know you are never having to do it on your own."

(5) Overall life balance. Participants reported feeling better overall and having more balance in their lives.

"It's taught me balance... when I do exercise I am more focused and everything is just easier."

"Since I have started training I don't get sick, I don't get headaches. I use to get headaches at least twice a week. I much more happy, better quality of life, more energy, not nearly as tired."

"I learned to stay focused…it became a priority and learning discipline like that is going to help me beyond running with the rest of my life, other classes, it is just going to help".

Theme B: Gains in Self-efficacy and Promotion of Efficacy Expectancy
Evidence of all levels of efficacy expectancy (emotional arousal, verbal persuasion, vicarious learning, and performance accomplishment) within the course construction were evident in participant statements. In addition, participants reported increased feelings of self-efficacy (specific to running and generalized) were demonstrated by participant quotes. A final subtheme was that participants reported an increased capacity for self-regulation, an essential skill for maintaining and increasing future efficacy and accomplishment.

(1) The first subtheme of this major thematic category was that efficacy expectancy was promoted systematically throughout the course in a graduated pattern beginning with

(a) emotional arousal (i.e., anxiety regarding one's ability to perform the required amount of running)

"I would think to myself that I didn't know if I could do this…I mean…a marathon seemed so overwhelming. But I knew I would be devastated if everyone else did it and I didn't, so I would get up and go practice." And, *"I didn't know if I could do it, but knowing everyone else was going made me more motivated…I didn't want to be left behind."*

(b) verbal persuasion by the instructor,

"Dr. ____always encouraged us…she made us feel like we could do it…she said if we wanted to do it then we could. She kept us fired up."

"Because my professor believed in me…I believed in myself. I had never been a runner before and I would question if I could really do this. She told me over and over that I could, she was so supportive. People believing in you…it gives you so much encouragement…especially when you don't know if you believe in yourself [crying]. We worked so hard and we accomplished so much."

(b) vicarious learning through role modeling by the instructor, guest speakers, and fellow classmates,

(c)

"Dr. _____was an incredible role model for all of us…she trained for the Boston marathon while we were training, so she was going through what we were going through. She's experienced. We believed what she said."

"Seeing other people run and accomplish their goals makes you know that you can do it, too".

(d) Performance accomplishment was illustrated through participant statements about completion of half or full marathon.

"You actually accomplish something…I never thought I could do that before this class."

"This sense of accomplishment whether you ran the half or the full—I had never felt anything like it. I didn't feel that way when I walked across the graduation stage…Your not going to feel that way from making an A on a biology test, it [the accomplishment] makes you feel powerful."

"I feel good about telling other people 'Wow! Look what I did, look what I accomplished!'"

(2) The second subtheme encapsulated self-efficacy (both general and task specific).

"I've grown—like I feel like I can accomplish anything! I am more extroverted."

"When you prove to yourself…I mean it's like something you did for yourself. The sky is the limit…I can achieve pretty big goals"

"Now we're talking about trying to do a triathlon. You know you can do anything because you achieved this goal."

(3) The third subtheme focused on participants' increased ability to self-regulate training behaviors. Self-regulation could be described as an individual's ability to envision potential courses of action, judge his or her ability to produce the actions necessary for desired outcomes, and then realistically goal-set and take action. These skills are related to increasing an individual's efficacy in that accurate and continual self-regulation allows the individual to navigate potential barriers and stressors through pro-action in order to achieve a goal (Bandura, 1977).

"We learned a lot about what our bodies could handle through motivation and self-discipline"

"I learned time management—you know like if I am going to run in the morning I have to build in time to stretch and cool off or I have to eat at this time and get my homework done by that time in order to go train"

"…l*earning to set a goal and achieve it, and learning how to deal with setbacks and how to reformulate goals"*

Theme C: Better Understanding and Integration of Course Content

In regard to this major thematic category, participants discussed what this course was like in comparison to others and what helped them to succeed. Participants compared this course with other undergraduate courses they have taken at the same university. Participants honed in on their success in the course because of the way in which the course was delivered. Participants perceived a sense of control and responsibility over their success or failure in this course. The data indicated that the participants took great ownership and could direct their learning throughout the semester. Subthemes included: (1) course work tended to make more sense, (2) the course was applicable to life, (3) they understood content from other courses better, (4) there was an increased desire to learn, (5) a greater sense of connection to the instructor and other students compared to other courses, and (6) the course took great effort but it was worth it.

(1) Participants reported that the course work in this class tended to make more sense than in traditional, non-experiential courses. An example of this theme was:

"What was interesting is that this was hands on, we were learning because we are the test subjects, we are the experiment and we were pushing our bodies in ways we never had before and we were using all the tools she (the instructor) was giving us".

"It was easier to understand than other classes, we were doing something rather than just listening to someone talking."

(2) Participants reported feeling that the course content was applicable to real life and became part of their lifestyle,

"You learn a lot about life instead of just from a book like in other classes with stuff you are going to forget."

"While you're running you are thinking about what you learned in class, like about nutrition and technique. When you take a class you have to take you learn the information and then you forget it when it's over…but this will probably stick with us."

"This class has so much application involved. You could sit in a nutrition class and learn…but this is different…better…You learn by accomplishing and doing and it doesn't come over night—you work for it."

(3) Participants reported that content from prior courses was understood better and took on new meaning. One example is,

"I found that I understood information from other classes better…like it finally made sense after taking this class."

(4) Participants experienced an increased desire to learn as a result of this experience. For instance,

"I learned more from this class than a lot of my others. It was interesting and made you want to pay attention and learn more."

"I was amazed by what our bodies could handle…I'm curious about what else I'm capable of—this just jumpstarted my interest."

(5) participants felt more connected to other students in this class compared to others

"Prior to this, I felt like in my classes I was just a number to my teachers, like I didn't really matter, sort of like I was just a social security number. But in this class we were like a family. We are really sad that this class is ending and we want to get together and have a barbecue."

(6) Participants felt they had sacrificed more for this class than others, but that the effort was worthwhile and valuable. Examples include,

"I learned that in life you have to work hard to accomplish something, your goals and effort will all pay off in the end."

"I gave up a lot to get this done, and in the end it was worth it all"

"We worked so hard, unbelievably hard, and I wouldn't change a thing about that…
I would definitely do it again."

Discussion

The importance of experiential learning strategies had been demonstrated throughout this qualitative inquiry. This study magnifies the importance of the relationship between self efficacy and experiential learning. The participants frequently discuss their self efficacy and how it has increased due to their experiences during this course. Participants have linked physical, emotional and social well being to their direct experiences throughout the semester. Fallon and colleagues (2005) found a significant relationship between high self-efficacy and physical activity engagement. The participants reported positive correlations between exercise and an increase in self-esteem.

This qualitative study specifically addresses the experiential aspect of a college level Kinesiology-Exercise Immunology course. The current review of the literature on physical experiential learning involves wilderness and outdoor adventure with varying degrees of reported success. This study explored how structured physical exercise contributes to overall physical and mental well being as outlined by the literature. The literature notes that overall experiential training tends to lower graduate students' tension anxiety response while reducing feelings of depression as well as greater levels of social support. This is evidenced as the participants report a social wellness benefits based on Yalom's (1985) curative factors that include: (a) a sense of belonging (group cohesion); (b) interpersonal

learning and development of social skills; (c) feelings of hopefulness; (d) increased altruistic and empathic orientation; and (e) increased universality-the feeling that other people understand and are also coping with the challenges or difficulties one is facing.

Though this study explored experiential education related to structured group exercise; the data revealed similar findings to prior experiential education research--such as outdoor and wilderness training and education--in regard to increases in participant self-efficacy (Fallon, Wilcox, & Ainsworth, 2005; Jones & Hinton, 2007; Hu, Motl, McAuley, & Konopack, 2007; Propst & Koesley, 1998). Hu et al sampled 28 low to moderately active college-aged women and measured self-efficacy on enjoyment of physical activity using a quantitative methodology. The researchers found that one's self-efficacy perceptions influence affective responses, which supports Bandura's social cognitive perspective. The above mentioned research provides a basis for this qualitative study. Additionally, this study directly ties experiential education to structured group exercise, while finding an increase in efficacy of the participants.This increase in efficacy may be due in part to the development of self-regulatory skills; indeed, many of the participants described having to learn how to manage time and how to break down the larger objective of running a marathon into smaller more manageable goals for weekly training. The skills necessary for self-regulation may be transferred to other life areas beyond physical activity, such as pursuing an advanced academic degree, and many of the participants described feeling more efficacious for pursuing life goals as a result of their accomplishments in this course. The participants also reported gains in overall holistic wellness including physical, mental, social, and spiritual well-being. While this benefit was not a direct intention of the course, the overall benefit to student learning, quality of life and potential college achievement is apparent.

Finally, the benefits of participation in regard to increased student understanding of course material and integration of prior course learning parallels findings in the service learning literature. Given the benefits to student learning, these findings are useful for considering how experiential learning strategies may be infused in other course or curriculum design.

Limitations

Qualitative research, like other research methods, has limitations. Specifically, focus groups are self-selected and small in numbers of participants; therefore, findings are not generalizable to a larger population (Cameron, 2005; Ivanoff & Hultberg, 2006; Mansell et al.). However, not being able to generalize the findings does not limit the data from being transferrable (Rossman & Rallis, 2003). Another primary limitation of using the focus group format is reliance on language as a medium—inherent in this is the constructive differences and meanings assigned by the message givers and receivers. This becomes further convoluted when the researcher seeks to determine the "truthfulness" of what is shared within the focus group context. Specifically, there may be limits to what focus group members disclose, as well as issues of conformity, the potential emergence of groupthink, and the tendency to divulge information perceived to be socially desirable (Hollander, 2004). Smithson (2000) further cautions that focus group research is limited by the emergence of dominant voices to the exclusion of marginalized perspectives, moderator bias including culture of the moderator, and the group tendency toward normative discourse. In addition, according to Freeman (2006), rigor, group design, and the nature of inference is situated within the context of the respective epistemological assumptions of researchers.

This qualitative inquiry was limited to the individuals who chose to participate in the focus groups. Other individuals who participated in the class may have had different experiences, which were not included in these findings. Moreover, no minority students participated in this study—so it is difficult to ascertain if different cultural groups may have viewed this experience similarly. Additional outcome measures and analysis are warranted.

Conclusion

This study was designed to inquire about student perceptions of an experientially designed Exercise-Immunology course. Unlike much of the research on experiential education empirically studying outdoor adventure education and service learning, this study focused on a college course that integrated structured group exercise. Focus group research was utilized to investigate student perceptions of the course, and although there are limitations to using focus groups, findings revealed participants' perceptions of greater overall holistic wellness, gains in self-efficacy, and learning benefits as a result of participating in this course.

Beyond the limits of focus group methodology, there are other limitations of this study. To begin with, the participants in this study were primarily white and female. This limits the researchers' ability to explore how other ethnic or racial groups may perceive this type of educational opportunity. Further, no non-traditional students participated (such as those with an identified physical disability or elderly students). However, this does not preclude the value of the study in considering an experiential approach to teaching future courses.

Future implications include consideration of including structured group exercise in designing other Kinesiology courses and using a greater range of mixed methodological approaches for studying the effects of this type of course design. For example, in the future the course instructor could distribute pre and post tests to measure student outcomes, such as self-efficacy instruments and mental health or holistic wellness inventories. Another potential use for this data is that the positive mental health benefits may warrant investigation into how college counselors can more effectively link college students with programs (such as extracurricular activities) that use structured group exercise or structured group activity to promote wellness, efficacy, and learning. Moreover, while these findings hold much hope for positive student learning outcomes, ongoing research is needed to accurately determine the effectiveness and the challenges of implementing these types of experiential learning opportunities.

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Appendix A
Focus group questions for the Kinesiology-immunology marathon groups.

1. Compare the format of this course to others you have taken.
2. What is the most important thing you have learned from this course?
3. How do you approach exercise differently as a result of participating in this course?
4. How is training as a group different from--or similar to--training alone?
5. Talk about the challenges you faced in training.
6. What helped you overcome those challenges?
7. As a result of training in this course, what have you learned about yourself or others?
8. For whom would you recommend a course like this?
9. For whom would you NOT recommend this course?