



Using the bio-psycho-social-spiritual framework in holistic health and well-being: A case example of a community- and faith-based sports program

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Abstract

As in other parts of the world, Canada's citizens are confronted with biological, mental, and social crises. Despite the fact that these issues can be interrelated, they are regularly studied and addressed separately. The bio-psycho-social (BPS) framework was offered as an alternative approach for care because of its assumption that in order to produce a variety of interconnected outcomes relative to health and well-being, biological, mental, and social issues must all be considered. Some authors have argued, however, that without a spiritual component, the BPS framework is not holistic. As such, recent scholarship has explored the inclusion of a spiritual component in the framework, and social service professionals have been encouraged to consider designing interventions informed by the bio-psycho-social-spiritual (BPS-S) framework. Good examples of how to apply the framework in practice are limited. This case example describes how the BPS-S framework was applied to design a community-, sports-, and faith-based martial arts program in Ontario, Canada. The program draws upon a combination of sports-, community-, and Christian faith-based considerations to serve its participants, including vulnerable populations such as those with constrained access to social services due to mental health challenges, language barriers, or low levels of income. This article details some of the ways in which the operations of this program (e.g., activities, target audience, leadership) were informed by the BPS-S framework. This includes some of the advantages of drawing upon this framework to foster more nuanced and holistic well-being among participants. The article concludes with some limitations of the BPS-S framework and implications for applying it to other social service interventions.

Key words: BPS-S framework, holistic health, community-based program, sports, faith

Introduction

Like others across the globe, Canada's citizens are confronted with devastating biological, mental, and social issues such as high rates of noncommunicable disease, mental illness, and social challenges.¹ These issues are regularly studied and addressed separately (e.g., different service providers, systems, disciplines), despite the fact they can be intimately interconnected. Mental health incorporates emotional and spiritual health and is influenced by many factors including biological health and social predictors such as home and work environment.²

Given the interconnected nature of crises, increasingly, scholars and practitioners are calling for more holistic service responses to facilitate care. The bio-psycho-social (BPS) framework is beginning to be more commonly discussed in health and social sciences because of its assumption that in order to produce a variety of interconnected, nuanced outcomes relative to health and well-being, biological, mental, and social issues must all be considered.³ Approximately 30 years ago, scholars in some areas, especially in health and palliative care, began exploring the inclusion of a spiritual component within this framework.^{4,5} Without it, some supporters of the BPS model felt that the BPS framework was incomplete—it was not holistic.⁴ More recently, social service professionals have been encouraged to design interventions informed by the BPS-S framework yet good examples of how to apply the BPS-S framework in practice are limited.⁶

This article responds to this gap in literature by offering a case example of an intervention informed by the BPS-S framework. More specifically, the Kung-Fu for Christ (KFFC) program draws upon a combination of sports-, community-, and Christian faith-based considerations to serve its participants, including vulnerable populations such as those with constrained access to social services due to mental health challenges, language barriers, or low levels of income. Often, vulnerable community members struggle with multiple interconnected challenges such as ill health (biological), mental illness

(psychological), social exclusion (social), and hopelessness (spiritual).^{7,8} Although research suggests that sports, generally,⁹ and the combination of sports with community work can be advantageous for promoting mental health,¹⁰ little scholarship focuses on how the inclusion of Christian faith within sports-based community work can facilitate holistic health. This article details some of the ways in which the operations of this program (e.g., activities, target audience, leadership) were informed by the BPS-S framework. In so doing, the advantages of drawing upon the BPS-S framework to foster more nuanced and holistic well-being among participants is discussed. The article concludes with implications for applying the BPS-S framework to other social service interventions.

When referring to the BPS-S framework, the term *spiritual* is used. Some scholars, however, contend that there is a distinction between *spirituality* and *religion*.¹¹ *Spirituality* can involve a search for transcendent personal meaning or purpose and connectedness, such as with others, or something beyond oneself (e.g., a deity).¹¹ Although *religion* includes similar attributes, it tends to incorporate a specific set of practices, ethics, and values associated with particular beliefs (e.g., about a certain God, set of sacred scriptures).¹¹ Although religion and spirituality can be expressed in similar ways, this is not always the case.¹¹ Religion can be expressed through group or private prayer, reading sacred scriptures, or engaging in worship activities while spirituality can be expressed through music or art.¹¹ Although the term *spirituality* will be used in order to be in keeping with the spiritual component of the BPS-S framework, this article will primarily discuss the inclusion of religious activities and components within the KFFC program.

Case Example

Based out of Ontario, Canada, the KFFC program uses martial arts (MA) as a conduit for fostering physical, mental, social, and spiritual health. The program, which is offered free of charge, consists of four classes a week year-round: one for

children (aged seven to 15); one for adults (aged 16 and up); one for the program's volunteer instructors; one for junior (youth) volunteer leaders. Operating since 2013, the program serves around 40–60 children and 20 adults weekly in the children's and adult's classes, respectively.¹² Its participants are diversified by gender, ethnicity, culture, first language, level of education and income, ability, and religion, among other demographics.

The Thursday night classes were designed to build community and to teach kung-fu to children and adults in a way that reflects Christian values through sport in order to intentionally expose non-Christian students to Christian beliefs and values and to encourage the spiritual growth of new and mature Christians. The Monday night classes were designed to advance instructors in their own MA training and to teach them how to instruct others in MA and in sharing the Gospel. During all classes, devotional lessons and prayer are incorporated.

In order to develop KFFC, program developers drew upon MA research. At the time that it was developed (in 2012), there was less research available. This article features some of the research used at the time as well as more recent research for the purposes of advancing knowledge, particularly for those who may be interested in developing a similar program.

Brief Introduction to the Sport of Kung-Fu

MA were historically used to train for war and have been practiced for centuries.¹³ The advent of modern weapons (e.g., guns) caused MA to become a sport used in the Western world for physical training as well as for mental, social, and spiritual development.^{13,14}

Kung-fu (K-F), specifically, is considered a “traditional” MA emphasizing “philosophy and tradition, pattern practice/Kata, respect, meditation, self-control, [and] non-aggression”¹³ (p. 10). K-F is also considered a “hard” MA because of its focus on

generating speed and force in its techniques and strikes.^{13,14}

In their typical curriculum, K-F students learn combinations of hand strikes and kicks that can be practiced with or without equipment such as punching bags.¹⁵ These techniques are also put into choreographed patterns of movements called “katas”^{14,15} (p. 2). Through activities called “sparring,” students also practice their techniques on a partner's body in a controlled way.¹⁵ K-F also incorporates markers of other sports such as aerobics.¹⁶

Fighting techniques taught in K-F are not used to conquer or harm opponents, but rather used for artistic expression, to develop athleticism and gain physical education, to develop morality, and to “improve one's self mentally, socially, and (potentially) spiritually”¹⁷ (p. 68). All lessons are transferrable to everyday living.

Case Example: Applying the BPS-S Framework to Develop the KFFC Program

Biological

The KFFC program was designed to help students engage in a healthier lifestyle. Increasingly, K-F is being used in programming for young, middle, and older adults¹⁴ because of its various positive biological outcomes such as improved flexibility, coordination, speed, and endurance.¹⁸ Training in K-F can quickly facilitate physical benefits (within weeks)¹⁹ regardless of the age at which a student begins their training.¹⁴ Physical activity can combat a sedentary lifestyle that can lead to obesity in childhood, adolescence, or in later life,¹⁸ and prevent diseases (e.g., cancer, diabetes) and premature, preventable death.¹⁴ Drawing upon this research, in the KFFC program, children, youth, middle aged, and older adults are encouraged to be physically active by engaging in weekly training sessions in order to improve their fitness (e.g., flexibility, coordination, endurance).

The KFFC program intentionally includes physically intense training activities. This is because the moderate-to-vigorous training intensity of K-F can contribute to many positive elements of health such as improved cardiovascular fitness, increased muscular strength and endurance, and improved skeletal status (e.g., bone strength).¹⁴ In the KFFC program, students also practice techniques (e.g., kicking, punching) and katas meant to improve their coordination, flexibility and balance¹⁴ which research suggests is particularly advantageous for vulnerable populations such as older adults at risk of falls,¹⁶ or persons with visual impairments.²⁰ Some scholars suggest that for some, practicing K-F for as little as 30 minutes per session twice a week for a month can lead to improvements in balance and neuromuscular control.¹⁶

Although KFFC, in keeping with traditionally hard MA, was intended to be physically intense, it was also designed to allow students to train within their abilities. Additionally, KFFC's belt ranking system ensures that fitness requirements increase incrementally in difficulty as students progress in their training.²¹

Psychological

The connection between MA and improved psychological well-being is well established^{15,22} in children, adults, and older adults.^{23,24} As such, the KFFC program designers incorporated activities meant to increase students' psychological health and well-being. More specifically, KFFC students learn and practice K-F techniques such as sparring, self-defence, and katas that the research suggests can increase their cognitive functioning such as attention, working memory, long-term memory, speech, intelligence,^{16,25} judgement, planning, and conflict resolution.^{15,22} Improvements in cognitive functioning were expected to span all ages and developmental stages. Additionally, it was expected that psychological improvements would be realized quickly since some researchers have found that after only a few months of training, older adults see improvements in memory,^{16,23} motor reaction time,

and divided attention.¹⁶ During their training, KFFC students also learn and practice challenging techniques that become increasingly cognitively demanding in order to facilitate improved psychological functioning.

During the KFFC program, students participate in what some call *rituals*, which are repeated practices²⁶ such as bowing into and out of the training area before and after classes and repeatedly performing katas. In keeping with research, it was theorized that such ritualized activities could lead to improvements in self-discipline and self-control.²⁶

Through training activities such as partner drills, KFFC was designed to improve mood and emotional well-being^{23,27} as well as foster resilience and coping. Such training activities were also built into the KFFC curriculum to help students learn how to (and that they can) push themselves beyond their limits, which research suggests will give them confidence in their ability to persevere and grow through difficulty.²⁸ In keeping with MA research, specific partner drills (e.g., self-defence, sparring) were also incorporated into the KFFC program in order to increase students' tolerance of distress since they are repeatedly exposed to stressful²⁹ and threatening situations,³⁰ and taught how to positively respond.²⁸

KFFC program designers intentionally included a variety of individual and partner training activities such as katas, conditioning, sparring, and self-defence based on research suggesting that such training will support those with mental illnesses. For instance, MA training is an effective methodology for supporting children with Autism Spectrum Disorder such as by developing social skills and improving overall attitude³¹ and executive functioning (e.g., working memory, emotional regulation, behaviour inhibition).¹⁵ Research suggests that adults who train in karate are less prone to depression,³² and MA training can improve perceived quality of life.¹⁴

KFFC incorporates *modelling*,³³ the process of learning behaviour by observing another person. In MA, it is important that instructors model positive

behaviour during training (e.g., self-control, respect) so students can learn and emulate it.^{34,35} Modelling is particularly important for students who lack positive or supportive role models (e.g., parental figures).³⁵ KFFC instructors are expected to model excellent character²⁵ and have a combination of leadership and mentorship abilities.³⁶ Further, KFFC instructors must demonstrate care toward students, such as by showing faith in their abilities³⁵ and by offering positive feedback.³⁷ Such care can boost students' confidence and self-esteem³⁵ and positively influence behaviour.³⁴

In the KFFC program, positive modelling is not just demonstrated by adult leaders, but also by children and youth. As is typical in many MA programs, more advanced students are given teaching responsibilities.³⁶ More than this, in the KFFC program, children and youth can develop their leadership skills by taking a youth leadership development course and then serving as models for other students.

Social

Research suggests that MA can foster positive social functioning, which is important because effectively engaging in social exchanges (e.g., making eye contact or taking turns conversing) can be particularly challenging for some, including those with mental illnesses such as Autism.³⁸ KFFC was designed to facilitate improvements in social functioning by incorporating training activities such as self-defence that would allow students to work with and give feedback to their teammates to purposely facilitate social exchanges. Additionally, in the KFFC program, within their first few weeks of training, students are encouraged to begin demonstrating, and even informally teaching, techniques to their peers.

In the KFFC program, a created sense of belonging was important for all students, including those who experience social exclusion (e.g., due to a mental illness).³⁹ One program aim was to intentionally bring students together across demographic divides. This was to be accomplished in two ways. First, an intentional recruitment

strategy was to be used to recruit program participants from neighborhoods identified as being demographically diversified. Then, the program was designed to ensure that students work in groups of diversified peers to practice their techniques. Relatedly, in many MA programs, including KFFC, the whole family trains together. This allows parents and children to bond over a common interest.³⁵

KFFC was also designed to promote prosocial behaviours such as respect, empathy,⁴⁰ and compassion²⁸ that students demonstrate in and outside of training. In KFFC, as in MA, students can learn how to remain calm under duress and regulate potentially harmful impulses.²⁸ In KFFC, students are taught through verbal lessons and K-F techniques (e.g., sparring, self-defence) how to react non-violently³⁷ toward others in situations when conflict is present.²⁸ Furthermore, they are taught peaceful conflict resolution strategies such as positive bystanding behaviours.³⁷ KFFC program developers were also careful to construct the program in a way that students would be explicitly taught skills to prevent aggressive or violent thinking, attitudes, and behaviours. KFFC students are taught to respond to their partner at the end of a sparring match with gratitude through a symbolic touching of their gloves.²⁸ This action teaches students that resolution and harmony can be achieved after a conflict.²⁸

Spiritual

The KFFC program is rooted in *spirituality*, which in this case, refers specifically to Christian religious faith. It is, therefore, an example of a community-based program (i.e., a program interested in broad social change) that is informed by religion.^{41,42} This means that activities designed to promote spiritual health were intentionally interwoven within the program. KFFC leaders were trained to demonstrate Christian values such as love and patience in every interaction with students, families, and community members. The assumption was that by integrating spirituality, students would feel listened to and deeply appreciated, cared for, and loved. This was especially important given KFFC's target audience: vulnerable persons such as those

with mental illnesses, struggles with substance use, low income, and new immigration status.^{12,43} Spirituality was also integrated into the KFFC program in light of research suggesting that it can positively impact people in a myriad ways.⁴⁴ For instance, spirituality can positively influence mental health.⁴⁵ For at-risk individuals, spirituality can foster positive health and mental outcomes, teach healthy coping mechanisms, and improve life satisfaction and subjective well-being.⁴⁶

In keeping with traditional MA programs, KFFC was designed to encourage students to develop in their character.⁴¹ The KFFC program, however, articulates them in accordance with Christian Biblical values, virtues, and attributes. Through techniques and verbal lessons (i.e., devotionals) offered at the end of classes, KFFC teaches students what MA scholars would deem to be “virtuous character strengths” such as “courage, benevolence, wisdom, temperance and justice”²⁸ (p. 2), respect, peace, and self-control.^{41,45} Research suggests that religious engagement offers individuals the opportunity to be a part of a community, which in itself, can facilitate the formation of strong social connections. Furthermore, through religious affiliations, individuals are provided opportunities to seek assistance and advice.⁴⁷ By incorporating religious engagement into the program, such as through bringing together non-Christian and Christian-identifying students, the KFFC program was designed to expand participants’ social circles.

KFFC was developed to facilitate communal religiosity such as by integrating group prayer at the end of each training session and offering a youth-led, Bible study after class. Engaging in public religiosity, such as attending religiously-based activities, can increase life satisfaction.⁴⁶ Engaging in group prayer and Bible readings can improve social relations by increasing the ability to forgive others for wrongs and motivation to repair damaged relationships.⁴⁸ KFFC was also designed to encourage students to pray, read their Bibles, and attend religious activities (e.g., church, Bible studies, Alpha courses, etc.) because spiritual growth, and

more specifically, immersion in the Bible and theological teachings, can facilitate spiritual maturity and discipleship.⁴⁹

Overlapping, Interconnected, and Multidimensional BPS-S Benefits

Categorizing KFFC’s activities and assumed outcomes in light of the BPS-S framework is challenging because in keeping with MA research, this program was intended to promote overlapping and interconnected physical, mental, social, *and* spiritual health.^{17,45}

Like MA, the KFFC program was designed to teach students in all age groups how to overcome physical, mental, and spiritual hardships.^{17,50} Group exercise can foster psychological development such as self-efficacy beliefs,⁵¹ and lead to social benefits such as friendship development and a sense of belonging.¹⁰ Sport, in particular, can overcome barriers (e.g., communication) making it an accessible social option.¹⁰ There are also benefits to having social support when trying to increase one’s level of fitness.¹⁴

Martial arts can reduce disordered behaviours associated with panic disorders, generalized anxiety disorders, social phobias, obsessive compulsive disorders, binge eating, anorexia nervosa, Alzheimer’s disease, dementia, and depression.⁵² This is important because KFFC’s target demographic includes those struggling with low income, who, research suggests, are more likely than those who are wealthy to suffer from depression due to economic stressors.⁵³

The promotion of non-violence is another outcome of MA that is connected to various BPS-S categories. Philosophical underpinnings common to MA such as “respect for others, humility, confidence, responsibility, honesty, perseverance, and honor”⁵⁴ (p. 1137) can enhance character development and facilitate a number of psychological and social benefits such as awareness of emotions (e.g., anger) and increased altruism.³⁷ These philosophical underpinnings also align with

spiritual well-being such those fostered by “the fruits of the Spirit” (e.g., patience, peace) (see Galatians 5:13–23). MA, then, can allow students to learn the Biblical values needed to lead lives of faith. Since spirituality is connected to other BPS categories, this is important. Spiritual well-being can lead to lowered onset rates of many physical conditions including coronary disease, heart attacks, emphysema, cirrhosis, liver disease, and hypertension.⁵⁵ Spirituality has even been positively correlated with longevity.⁵⁶

Additionally, the interconnected philosophical and spiritual underpinnings of the KFFC program were theorized to encourage increased social and civic engagement, such as through volunteering. Research suggests that persons are more likely to engage and stay involved in volunteer activities if they feel as though they are part of the team, receive regular encouragement, and have their work recognized.⁵⁶ Mentorship, which can be connected to volunteerism, can increase positive self-perception, increase academic performance, decrease high-risk behaviours, and improve interpersonal relationships.⁵⁷

Lessons Learned

This article offers an example of a program that was intentionally designed such that program operations (e.g., curriculum) were informed by the BPS-S framework. For example, activities were incorporated into the KFFC curriculum that research suggests would lead to increases in students’ biological, psychological, social, and spiritual health, as well as promote overlapping areas of health (social and spiritual). Training activities such as hand strikes, kicks, and katas, in particular, can lead to biological and psychological improvements such as in strength, endurance, memory, and self-confidence. Partner training drills can advance biological, psychological, and social health. Leadership development activities can foster psychological and social health. KFFC leaders were instructed to teach in ways that would model pro-social behaviour. Religious curricular components,

such as verbal lessons and activities meant to animate religious engagement (e.g., group prayer, Bible study), were incorporated to promote spiritual, social, and psychological health.

By detailing some of the ways in which the KFFC program was informed by the BPS-S framework, this case example highlights the potential and advantages of using a BPS-S framework to develop programs aimed at providing holistic care: that is, programming that considers the promotion of biological, psychological, social, and spiritual health and well-being relative to one’s self, others, and community. This programming includes supporting persons from diversified populations, including those who are vulnerable. This case example also illustrates how incorporating BPS and S categories into program activities can have multidimensional impacts on health. It also overtly demonstrates the importance of adding a spiritual component to the BPS framework to achieve more holistic health.

Implications and Recommendations for the Future

Community-, sports-, and faith-based programming which incorporate the BPS-S framework, such as the KFFC program discussed in this article, have the potential to contribute to social service and community development activities. Because of its reach,⁵⁸ assets, transferrable intervention outcomes,⁴⁴ and comparatively low implementation cost,⁴⁴ scholars and practitioners are urging service providers to incorporate MA such as K-F into services such as psychotherapy.²⁸ The additional inclusion of spirituality may offer a beneficial alternative to traditional community- and sports-based programming. For students across all demographics and age categories, such a program can have nuanced biological, psychological, social, and spiritual impacts. In typical programming, each of these elements of care would be offered by separate care providers.

Because of its focus on pro-social behaviours, such as compassion,²⁸ empathy, civic engagement, and leadership, a community-, sports-, and faith-based programming such as KFFC can be useful for community development activities and as a strategy for teaching interpersonal conflict resolution and relationship-building. Ultimately, this case example illuminates how the BPS-S framework could have important implications for micro and macro levels of practice.

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