



A Feasibility Study of a Program Integrating Mindfulness, Yoga, Positive Psychology, and Emotional Intelligence in Tertiary-Level Student Musicians

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Abstract

Objectives Higher education student musicians face high physical, psychological, and emotional demands affecting their well-being and academic experience. This study examined the feasibility and preliminary effectiveness of the so-called CRAFT program, based on mindfulness, yoga, positive psychology, and emotional intelligence, to improve psychological well-being, psychological distress, emotional regulation, and physical flexibility amongst tertiary education student musicians.

Methods Using a single-arm pre-post study design, student musicians ($n = 25$) at a royal conservatory of music in Spain followed a 25-week CRAFT program that was curricularly implemented during the academic year 2018/2019, once a week for 50 min. The outcome measures included were the Five Facet Mindfulness Questionnaire (FFMQ), the Subjective Psychological Well-Being Subscale (SPWS), the Emotional Regulation Questionnaire (ERQ), the Depression Anxiety and Stress Scale (DASS-21), and the Sit and Reach Test (SRT).

Results Paired samples *t*-test and practical significance analyses revealed significant improvements for the total scale of the FFMQ ($g = 0.28$), the Observe ($g = 0.44$) and Describe ($g = 0.38$) subscales of the FFMQ, the SPWS ($g = 0.32$), the Reappraisal subscale of the ERQ ($g = 0.43$), and the SRT ($g = 0.39$). A similar pattern of results was observed in a filtered sample ($n = 15$) when excluding participants simultaneously engaged in yoga/meditation activities other than the CRAFT program.

Conclusions These results indicated that the CRAFT program is a promising intervention for improving mindfulness skills and health and well-being states and abilities amongst higher education student musicians. Further research is needed to substantiate these findings and extend them to similar settings and populations with complex psychophysical concerns.

Keywords Mindfulness · Yoga · Emotional intelligence · Well-being · Student musicians · Feasibility

Young adults undertaking tertiary education might be regarded as a population at the peak of their physical and mental faculties, and hence not given worldwide preference for health promotion (Lee & Loke, 2005). However, as

shown by various epidemiological studies conducted in the last decade across different countries, tertiary education students have well-documented issues with reference to health and well-being (Henning et al., 2018), and amongst these,

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emotional and mental disturbances such as psychological distress have been reported as highly prevalent (Auerbach et al., 2016; Hunt & Eisenberg, 2010); even with higher rates than in the general population (Ibrahim et al., 2013; Stallman, 2010) and associated with a negative impact on their lives and academic performance (Bruffaerts et al., 2018). More specifically between disciplines, a large survey conducted at 81 tertiary institutions completed by 64,519 higher education students revealed that the greatest likelihood of having mental health problems, up to 44.4%, was reported amongst undergraduate and graduate students involved in art and design studies (Lipson et al., 2016).

Particularly in the field of music, the highly demanding challenges that higher education student musicians face associated with their musical practice and performance can be detrimental to their health, and consequently, to their academic and professional development (Antonini Philippe et al., 2019; Osborne et al., 2014). Regarding their physical health, higher education student musicians are commonly affected by performance-related musculoskeletal disorders (PRMD), a problem that has been attributed to various risks factors such as excessive practice, instrument-related postural needs, lack of adequate physical condition, muscular tiredness, and competitiveness (Cruder et al., 2020; Rodríguez-Romero et al., 2016). The prevalence of PRMD amongst student musicians has reached figures of up to 80% (Cruder et al., 2019; Zaza, 1998), while their physical pain is reportedly higher than tertiary education students of other disciplines (Kok et al., 2013). In terms of their mental health, there have been reported rates as high as 65% of professional and higher education student musicians afflicted by music performance anxiety (MPA; Fernholz et al., 2019; Kokotsaki & Davidson, 2003), an issue that has been also associated with high levels of PRMD (Steinmetz et al., 2014).

Drawing from the aforementioned concerns affecting student musicians, maintaining an optimal level of physical, psychological, and emotional well-being is of paramount importance, if not a requirement (Kenny, 2011; Williamon, 2004), if they are to perform to the best of their abilities. For instance, in the emotional domain, different well-being outcomes would be expected if a given performance-related mistake, injury, and/or critique is reappraised as an opportunity to hone one's skills and physical fitness, or, by contrast, it is self-regulated through inhibition and/or rumination over one's despondency or inability to perform. While cognitive reappraisal is considered one of the most effective strategies for managing negative emotions and is associated with experiencing higher self-esteem, life satisfaction, and positive emotions (Megías-Robles et al., 2019), expressive suppression and rumination are related to lower self-esteem and higher experience of negative emotions and depressive symptoms (Gross & John, 2003). Moreover, engaging in musical practice to achieve an optimal level of performance

can be a physically demanding activity in terms of energy expenditure, flexibility, range of motion, and pulmonary and cardiovascular functioning (Araújo et al., 2020). Previous research has suggested that musicians' involvement in health-promoting attitudes and behaviors including physical activity is scarce (Araújo et al., 2017; Panebianco-Warrens et al., 2015) and that musicians' lack of physical fitness is a risk factor for developing PRMD (Cruder et al., 2020). In a recent cross-sectional study conducted to gain a greater understanding of the relationship between physical fitness and music-making, Araújo et al. (2020) evaluated the level of physical fitness of 483 higher education student musicians on various standardized physical measures. The authors found that, except for 21% of the sample, there was an overall self-reported satisfactory level of physical activity as compared to their age-matched higher education peers. However, the scores for the field tests of lower back and lower body flexibility, upper body strength, and endurance were lower than normative values, overall raising questions as to whether student musicians' fitness levels fall short to meet their highly challenging performance-related demands.

Mind–body interventions such as mindfulness and yoga could be a good fit not only to synergistically improve higher education student musicians' physical, mental, emotional, and spiritual health and well-being but also to help them cope with their various academic and life demands. In terms of psychological well-being, a number of interventions conducted on higher education students support the effectiveness of these two practices for reducing stress, depression, and anxiety (Breedvelt et al., 2019; Halladay et al., 2019; McConville et al., 2017); increasing awareness, attention, memory, executive function, neuroplasticity, and overall cognitive and emotional functioning and self-regulation (Brunner et al., 2017; Gothe & McAuley, 2015; Tang et al., 2015); enhancing psychological well-being (De Vibe et al., 2013; Jarry et al., 2017; Tang et al., 2020); and alleviating particular concerns affecting higher education student musicians such as music performance anxiety (Chang et al., 2003; Stern et al., 2012). In terms of physical health, a growing body of research including *Hatha* yoga-based interventions has pointed to a range of physiological benefits for higher education students such as gains in flexibility, strength, and balance, as well as cardiovascular and pulmonary functions (Birkel & Edgren, 2000; Park et al., 2017; Smith et al., 2011; Tran et al., 2001).

In attempting to explain these outcomes, researchers have proposed various underlying mechanisms of both top-down and bottom-up processes through which the skills developed within yoga and mindfulness practices constitute a linchpin that integrates the engagement of high and low brain networks to enhance cognitive, physical, and emotional self-regulation for health and well-being promotion. For instance, the viscerosomatic, interoceptive, and embodied

experience elicited by the physical yoga postures and breathing techniques has been linked to the activation of bottom-up brain networks and systems such as the low striatopallidal-thalamocortical network and the parasympathetic nervous system (Gard et al., 2014). Accordingly, yoga-based practices may counterbalance the stress responses through vagal nerve stimulation and hypothalamic–pituitary–adrenal axis downregulation—with consequent reduction of cortisol and pro-inflammatory cytokines—while enhancing markers of psychophysiological health (e.g., blood pressure, heart rate, flexibility, balance, strength, pulmonary functions, and musculoskeletal conditions, McCall, 2013; Sullivan et al., 2018). With regard to psychological health, both mindfulness and yoga meditative practices encourage selective intentional attention, a non-judgmental and acceptance-based attitude, and a decentering process. These effects concomitantly instigate the activity of the executive and frontoparietal control brain regions (e.g., dorsolateral prefrontal cortex, the dorsal anterior cingulate cortex, and the premotor cortex), and may reduce emotional reactivity, rumination, expressive suppression, and negative reappraisal (Chiesa et al., 2013; Fox et al., 2016; Gard et al., 2014; Menezes et al., 2015). Garland et al. (2009) proposed an explanatory model bolstering the role of mindfulness to indirectly engender positive reappraisal on the basis of its metacognitive mechanism of re-perceiving (Shapiro et al., 2006). The authors suggested that the mindful approach of observing the content of one's consciousness—emerging thoughts and emotions—nonjudgmentally enables one to disentangle and disidentify from it, implicating a shift of perspective, or re-perceiving, that represents itself a metacognitive experience of broadened awareness from which new meaningful insights could arise and be attributed to one's primary appraisal to be reconstrued it as positive. Therefore, according to the proposed model, mindfulness training could potentially be a decisive factor for monitoring and enhancing student musicians' emotional regulation strategies and particularly positive reappraisal. It appears that the current literature does not reveal any studies examining the effect of a particular intervention, let alone a mindfulness-based one, to improve emotional regulation strategies amongst musicians and higher education student musicians.

Despite the important role that developing mindfulness skills could play to benefit higher education student musicians' health and well-being and performance, the research evidence in this particular field remains scant (Rodríguez-Carvajal & Lecuona, 2014) with only a few exploratory studies available. In a quasi-experimental study, Steyn et al. (2016) examined the effect of a 7-week mixed program, which integrated mindfulness and sport-related psychological skills, across various psychological and well-being measures on a convenience sample of 36 undergraduate music students allocated to either an experimental or a control

group. The authors reported significant improvements in the experimental group for competitive state anxiety, self-confidence, positive relations with others, concentration, relaxation, motivation, worry, and the FFMQ subscales of Describe and Non-Judging. In another mixed intervention that included qualitative elements, Czajkowski and Greasley (2015) found improvements in all facets of the FFMQ on a sample of eight university singing students after following an 8-week Mindfulness for Singers program—based on the Mindfulness-Based Stress Reduction (MBSR) program and Mindfulness-Based Cognitive Therapy (MBCT). Similarly, in a further mixed-methods study using the same MBSR/MBCT program tailored for different music specialties, Czajkowski et al. (2022) reported significant improvements in the FFMQ and in a 15-item mindfulness scale specifically tailored for musicians (Czajkowski, 2018) on a sample of 25 conservatory students. Semi-structured interviews revealed a wide range of benefits either in lessons (e.g., greater bodily awareness, attention, learning experience, teacher-student communication), practice (e.g., increased effectiveness, creativity, and coping skills), performance (positive impact on MPA and expressivity), and ensemble rehearsals (e.g., improved collaborative and listening skills).

In addition to yoga and mindfulness, the burgeoning fields of emotional intelligence and positive psychology afford useful practices and components that can be leveraged by higher education students and student musicians to cope with their health and well-being concerns and academic demands. Positive psychology places a major emphasis on the positive side of people's lives through the cultivation of values, abilities, and states such as flow, savoring, gratitude, kindness, empathy, optimism, strengths, gratitude, hope, and meaning (Peterson & Seligman, 2004). Positive psychology interventions instructing participants to list grateful things per day have shown improvements in positive affect (Martínez-Martí et al., 2010), life satisfaction (Manthey et al., 2016), happiness (Mongrain & Anselmo-Matthews, 2012), and stress (Kerr et al., 2015), whereas, savoring, or the ability to be engaged in the appreciation of one's activities and experiences, has been found to increase resilience and happiness and reduce depressive symptoms (Smith & Hanni, 2019). Lastly, in the build-up of intrapersonal and interpersonal intelligence, emotional intelligence focuses on monitoring one's emotions and those of others to use this output efficiently to support one's behaviors effectively (Salovey & Mayer, 1990). To that end, Goleman's (1998) five components of emotional intelligence—self-awareness, self-regulation, motivation, empathy, and social skills—could help student musicians develop higher interpersonal and intrapersonal awareness of their emotions to better express them, maximize their teamwork skills in various contexts (e.g., chamber music, orchestra, collaborative classroom tasks), and deal with specific emotional concerns such as

MPA. Evidence from correlational studies supports the potential role of emotional intelligence to promote positive emotions, life satisfaction, happiness, stress reduction, well-being (Mayer et al., 2008; Ruiz-Aranda et al., 2014), and adaptive forms of emotional regulation strategies such as cognitive reappraisal (Megías-Robles et al., 2019).

As has been highlighted in this review of literature, either yoga, mindfulness, emotional intelligence, or positive psychology could potentially offer a valuable and distinct contribution to improve the health and well-being and academic experience of higher education students and specifically student musicians. However, along with their strengths, either of these disciplines presents limitations, and considering the multifaceted nature of higher education students' well-being and academic demands, it can be argued that relying solely on the practices and components of one of them could be limited. For instance, the theories and methods underpinning both positive psychology and emotional intelligence do not provide specific physical practices, and though those of mindfulness such as in the modern MBSR (Kabat-Zinn, 1990) program embed a few *Hatha* yoga postural elements, it could be upheld that such elements could not suffice to comprehensibly enhance physical well-being. Conversely, although the multifaceted method of yoga lends a wide range of meditative, breathing, physical, and relaxation practices to target psycho-physical health, it could be argued that mindfulness and emotional intelligence place a greater emphasis and afford a larger number of components to directly work with emotions. Similarly, though flow states might arise from the practice of both yoga and mindfulness, and engagement in yoga, mindfulness, and emotional intelligence activities might indirectly foster strengths and virtues, positive psychology gives direct focus to develop these components. Accordingly, it can be surmised that these four disciplines complement each other insofar as the limitations of each one could be counterbalanced and/or enhanced by the strengths of another. This rationale, in turn, undergirds the supposition that a single program based on selected components from these four disciplines could be more effective than a program exclusively based on one of them.

The recently developed CRAFT program was designed to facilitate a holistic education and health and well-being experience by concurrently addressing students' physical, emotional, cognitive, and spiritual processes and demands (Posadas, 2019). Though applicable to any educational context, the program was originally devised to attend to the health and well-being needs and academic demands of students undertaking tertiary education in highly specialized fields such as fine arts, languages, sports, and particularly music. The program is the product of integrating a careful selection, adaptation, and/or creation of practices and components derived from or inspired by the theories, philosophical underpinnings, methods, and state-of-the-art neuroscientific

findings of yoga, mindfulness, positive psychology, and emotional intelligence. These four disciplines represent the four foundations of the program and inspired, in turn, the creation of the acronym CRAFT, which stands for the following Spanish terms that synthesize the five elements of the program: *Consciencia* (i.e., Consciousness), *Relajación* (i.e., Relaxation), *Atención* (i.e., Attention), *Felicidad* (i.e., Happiness), and *Transcendencia* (i.e., Transcendence). A preliminary short version of the program, *the CRAFT's 7 mindful minutes*, was firstly applied at the Royal Conservatory of Music of Granada Victoria Eugenia in the subjects English for Musicians and Chamber Music during the academic year 2016/2017 (Posadas & Bartos, 2022; Rull et al., 2019). In 2017/2018, the program was implemented within the curriculum of the same institution as a CRAFT-based elective subject of Mindfulness, while a year later also as a CRAFT-based elective subject of Emotional Intelligence.

The purpose of the current study was to examine the feasibility and preliminary effectiveness of the newly developed CRAFT program to engender mindfulness skills and enhance the physical, psychological, and emotional health and well-being of higher education student musicians. To that end, we aimed to determine whether the CRAFT program could be a feasible intervention for further large-scale investigations based on evaluating its *Demand, Implementation, Practicality, Adaptation, Integration, and Limited Efficacy* (Bowen et al., 2009). We hypothesized that if higher education student musicians followed the CRAFT program as part of their curriculum at a Royal Conservatory of Music, they would report improvements in dispositional mindfulness and emotional regulation, psychological distress, psychological well-being, and physical flexibility.

Method

Participants

Participants were higher education student musicians enrolled in the CRAFT-based elective subjects of Mindfulness and Emotional intelligence at the Royal Conservatory of Music Victoria Eugenia. This public institution located in Granada, a mid-size city in the south of Spain, offers an advanced 4-year higher education music curriculum tantamount to a bachelor's degree. The final sample consisted of 25 student musicians, age range 19–26 years, of whom, the majority of them, 76%, were females. Regarding their CRAFT-based elective subject instruction, 16 participants, 64%, attended exclusively the subject of Mindfulness; 5 participants, 20%, the Emotional Intelligence subject; whereas 4 participants, 16%, both elective subjects. In addition, participants were also enrolled in other elective subjects they attended such as English, 20%, Ergonomics, 16%, Choir,

16%, History of Jazz, 12%, and German, 12%. Most participants, 92%, were either second or third-year student musicians, and more than a third of the sample, 32%, either pianist, 16%, or violinist, 16%. At Time 1 assessments, almost half of the sample, 48%, indicated not being involved in any physical activity, whereas 88% reported not practicing any yoga/meditation activity different from what they had already learned in the program.

Procedures

The current study was devised within the context of a larger research project funded by the regional government of the south of Spain. The aim of this project was to investigate the influence of the newly developed CRAFT program on the health and well-being of higher education student musicians. To that end, a longitudinal study was conducted during the academic year 2018/2019 to examine the preliminary effectiveness of the program to enhance various psycho-physical outcomes within this population.

This longitudinal study was originally conceived and designed to potentially include, depending on recruitment and retention rate, up to three CRAFT-based program groups and a control group, naturally configured based on participants' pre-existing enrolment choices in elective subjects. These prospective grouping options were as follows: first, a CRAFT program group-M, with participants enrolled in the elective subject of Mindfulness; second, a CRAFT program group-EI with participants enrolled in the elective subject of Emotional intelligence; third, an integrated CRAFT program group with participants enrolled in both CRAFT-based subjects simultaneously. All these CRAFT participants could also be enrolled in other non-CRAFT-based elective subjects. Lastly, those participants exclusively enrolled in non-CRAFT-based elective subjects (e.g., English, choir, Ergonomics, and History of Jazz) would serve as a control group. However, due to unexpected circumstances bound to final exam constraints, a substantial number of participants across all groups did not contribute to the post-test data collection phase (Time 2 assessments). Consequently, this event only enabled us to conduct inferential statistical analyses with the data derived from those participants enrolled in CRAFT-based subjects but only as a single group. Therefore, this investigation was reframed as a single-arm pre-post quasi-experimental study not only to examine the preliminary effectiveness of the CRAFT program to improve various health and well-being outcomes amongst student musicians but also its feasibility for further large-scale investigations. Nonetheless, such a reconfiguration was doable as all CRAFT participants received full instruction in the program for the contents and components imparted in both CRAFT-based elective subjects overlapped considerably (see program procedures and limitation section).

The program was curricularly implemented in the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence. As in all elective subjects, instruction occurred once a week for 1 h, from October 1st, 2018, till the end of the teaching phase on May 15th, 2019. After obtaining ethical approval from the relevant Institutional Review Board, the study was advertised to the students through the conservatory's website and announcements given by the faculty and board of directors. Recruitment and Time 1 data collection took place from January 14 to 21, 2019, at the different times and classrooms scheduled for the various elective subject classes—CRAFT and non-CRAFT-based ones—that were previously selected to that end. To facilitate these procedures while keeping teachers blind to them, no lessons were imparted in the aforementioned classes during this week, and teachers left the classroom upon the researchers' arrival. To ensure concealment of the pre-determined grouping options prospective participants could be part of, student musicians were recruited through brief presentations in which they were broadly informed that the study aimed at examining different physical, emotional, and cognitive health and well-being components associated with their lifestyle (e.g., meditation, sports) and curricular instruction at the conservatory. During these presentations, they were notified that their participation in the study was voluntary, anonymous, and not contingent on the marks of any of their subjects, and that they could withdraw from it at any time and with no repercussions for their musical studies. Therein, 100 interested student musicians signed a consent form and completed the Time 1 assessments. Participants were instructed to assign themselves an alphanumeric code, to be provided in all tests and surveys related to the study. All surveys except for the demographic questionnaire, which was paper-based administered, were filled in online through the platform Google Docs. To that end, each participant was provided with an institutional laptop displaying an open window with direct access to the online survey that included the FFMQ, the DASS-21, the ERQ, and the SPWS. Participants filled out the surveys in their respective classrooms supervised by two researchers, while a third researcher and a research assistant called participants one by one to perform the SRT.

After drawing all participants' enrollment options from the demographic questionnaire, participants' representation in each of the potential grouping options was as follows: the CRAFT program group-M ($n = 35$), the CRAFT program group-EI ($n = 15$), the integrated CRAFT program group ($n = 23$), and the control group ($n = 27$). Exactly the same course of actions that were implemented during the Time 1 assessments had been programmed for the Time 2 assessments that occurred from May 15 to 22, 2019, 2 weeks before participants' final examinations. Notwithstanding, following instructions announced by the board of directors,

post-test evaluations had to be moved to be conducted during extracurricular hours to ensure all academic instruction was imparted prior to final students' examinations. Anticipating a significant proportion of participants not completing post-test assessments due to this procedural change at Time 2, participants were offered one Elective Credit—not influential to any of their marks of any of their current enrolled subjects—in exchange for completing their participation in the study. Despite the incentive, only 16, 5, and 4 CRAFT participants from the three CRAFT-based sampled groups respectively at Time 1, and 3 controls, completed all Time 2 assessments. Moreover, there was an additional participant from the original CRAFT program group-EI who only underwent the physical tests. Since no valid inferential statistical analyses could be drawn from comparing these small sample-sized groups, the control group ($n=3$) did not feature in the final study design, and the three CRAFT-based program groups were merged into a single CRAFT program group ($n=25$). Lastly, the physical test data collected from the six participants in the CRAFT-based elective subject of Emotional Intelligence were excluded from analysis as no physical training was imparted in this subject. Fig. 1 shows the flow of participants through the study design and procedures.

The CRAFT Program

The CRAFT program was curricularly implemented through the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence at the Royal Conservatory of Music of Granada, once a week per 1 h, during the entire academic year 2018/2019. The total instruction consisted of 24 h administered in a well-equipped and multipurpose spacious classroom. The program developer (author MPP, blinded to the study hypotheses, measures, data collection, and recruitment), a singing and pedagogy professor at the same institution holding an advanced and extensive accredited formation and experience as a mindfulness and yoga teacher (Posadas, 2019), taught the program classes.

All foundations and elements of the program guided the practical and theoretical instruction in both CRAFT-based elective subjects. Notwithstanding, a preponderance of yoga and mindfulness components was integrated into the CRAFT-based elective subject of Mindfulness. For instance, the 15-min physical protocol based on *Hatha* yoga was exclusively administered in this CRAFT-based subject. Conversely, emotional intelligence, empathy, compassion, and positive psychology theory and practice were more prevalent in the CRAFT-based elective subject of Emotional Intelligence. During the first 14 sessions, there was a focus on developing the first three elements of the program (i.e., Consciousness, Relaxation, and Attention), while all five elements (i.e., Consciousness, Relaxation, Attention,

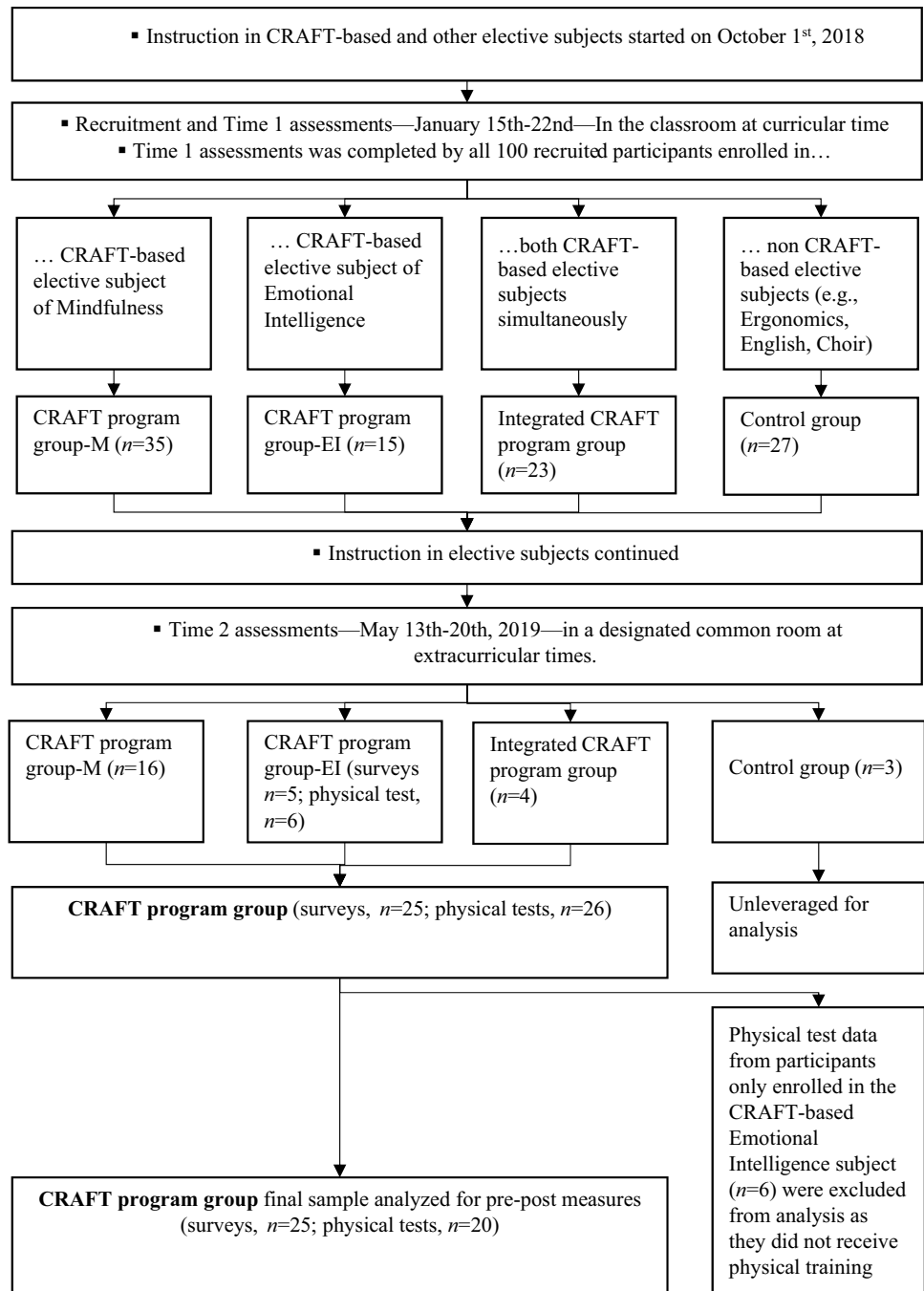
Happiness, and Transcendence) were worked on thereafter. To that end, various practices and theories selected from, inspired by, and/or adapted from the four foundations by the program developer were utilized. When applicable, these practices were adapted to the particular physical, mental, and emotional needs of participants. In addition, a series of reflective debates were stimulated to meaningfully and creatively inquire about how to apply the practices learned in the program to real-life situations and problems (e.g., personal, academic, and professional).

Participants were encouraged to complete at least 2 h of weekly home-based practice that included performing the CRAFT-physical protocol (only for those enrolled in the Mindfulness subject) thrice a week, formal and informal meditation, and journaling their lived experiences with the program.

Further details about the elements and foundations of the program can be consulted elsewhere (Bartos et al., 2021, 2022; Posadas, 2019; Posadas & Bartos, 2022) and a summary of the objectives, contents, and practices planned and delivered by the creator of the program for both CRAFT-based elective subjects can be accessed in the supplementary material linked to the current study. Moreover, we offer below a description of the CRAFT elements outlining some of the practices employed for their development.

Consciousness In the CRAFT program, *Consciousness* is the overarching and common ground element pervading all the other elements. Drawing from both yoga and mindfulness foundations, an essential step towards promoting *Consciousness* is developing a non-judgmental, open, and compassionate witness attitude in the observation of one's physical, mental, and emotional states. Therefore, such a process of nurturing heightened awareness signifies a steppingstone for the promotion of self-regulatory mechanisms, either naturally occurring metacognitively (Garland et al., 2009), or intentionally implemented upon one's sharpened realization of potential disharmony through specific practices. A series of practices drawn from *hatha* yoga and mindfulness (e.g., *antar mouna*, body scan, meditation techniques, breath awareness) and other ones, inspired by these two foundations, created by the program developer (e.g., so-named FEM meditation, based on the impartial observation of physical sensations, emotions, and thoughts) were used to teach *Consciousness*. Furthermore, these practices were applied within the framework of a mindful CRAFT yoga style that included selected or adapted *hatha* yoga postures and/or movements to be performed with a mindful-based approach (e.g., CRAFT physical protocol), whereby each postural physical element was associated with a particular attitude or "mental posture" to be applied in one's life. Lastly, components from both emotional intelligence (e.g., self-awareness) and positive psychology (e.g., strengths and

Fig. 1 Flow of participants and procedures through the study research phases



virtues) intertwine into the process of building a more holistic notion of conscious awareness. Accordingly, becoming aware was also emphasized in terms of acknowledging one’s strengths and virtues as well as noticing and feeling at both interpersonal and intrapersonal levels (e.g., being aware or sensing how others might be feeling). In the CRAFT program, an expanded level of *Consciousness* implies a broader understanding of the self, others, and the world in a process that could also encapsulate genuine lived experiences of subtle perception and insight—arguably inconspicuous

through materialistic-empirical lenses—that could bring about a change of meaning and perspective about reality.

Relaxation The second initial of the acronym CRAFT, “R,” not only refers to *Relaxation* but also *Regulation* and *Respiration*. In this conjunction of constructs, *Regulation* of one’s physical, emotional, and mental states is the linchpin through which both *Relaxation* and *Respiration* operate. Therefore, this element was worked through a wide range of self-regulation practices involving mainly breathing (e.g.,

sitali, sitkari, bhramari, full yogic breathing) and relaxation (e.g., yoga *nidra*, progressive muscle relaxation, autosuggestion, creative relaxation exercises, Jacobson's relaxation) components, but also postural (e.g., *hatha* yoga postures, CRAFT mindful yoga protocol) and meditative (e.g., visualization practices, *shamatha* meditation) ones for the promotion of holistic health and well-being. In addition, participants delved into the understanding of Goleman's (1998) five components of emotional intelligence, amongst which, the second one (i.e., self-regulation) was highly emphasized to cultivate the second element of the CRAFT program. Finally, explicit emphasis was placed not only on keep acknowledging and/or valuing one's strengths and virtues but also to use them for coping with real-life problems and difficulties. In recapping from the first two elements leading up to the third, becoming aware of one's body, mind, and emotional states through *Consciousness*, and being able to self-regulate them and relax, through *Relaxation*, eases the pathway to *Attention*, and, as a central part of this, meditation.

Attention The main practices implemented to develop *Attention* were drawn from the foundations of yoga and mindfulness. This encompassed the employment of specific *pranayamas* (e.g., alternate nostril breathing, unilateral nostril breathing, *bhramari*, *kapalabhati*, breath retention) and meditation techniques (e.g., *shamatha* meditation, sound meditation, open-monitoring meditation). In addition, various innovative games and activities adapted to the needs of higher education student musicians were implemented. The path of *Raja* yoga and predominantly its three meditative stages (i.e., *dharana*, *dhyana*, and *samadhi*) were reviewed and discussed. Moreover, ancient and modern mindfulness-based meditative practices such as Zen meditations and the body scan from the MBSR program respectively were taught and practiced. In the cultivation of *Attention*, participants were instructed to pay attention not just in terms of the mental faculty to keep one's concentration on a particular object, but also as to being fully immersed in the act of "attending" with care, affection, and love, in a holistic attentional process from which *Happiness* may emerge.

Happiness The CRAFT program approach to *happiness* is mainly eudaimonic, and hence, towards realizing one's virtues, living a purposeful and meaningful life, and ultimately attaining ever-lasting happiness independent of and unattached to the ever-changing external reality. This was encouraged through reflections on both yoga and Buddhist philosophy, further inquiry into positive psychology components such as how to realize and exalt one's strengths, virtues, and a gratefulness attitude (e.g., listing grateful things), as well as meditative practices such as loving-kindness and compassion meditations. However, hedonic happiness as when derived from savoring or

appreciating one's present activities and experiences was also encouraged. Drawing also from positive psychology, specific activities to develop flow states (Csikszentmihalyi, 1990) such as group-meditative improvisations and mindful concerts were employed to foster a blissful experience along with an optimal performance, cultivating, in turn, the attitude of non-attachment to the outcome. Moreover, happiness was also promoted from the theory and practice of full emotional intelligence (Díaz et al., 2012) and positive psychology through the work of empathy, motivation, hope, optimism, kindness, positive relationships, and compassion.

Transcendence Along the path of building eudaimonic *Happiness* and well-being and an expanded level of *Consciousness*, *Transcendence* stands as an essential element of the program requiring the mastery of all previous elements to connect with the ultimate transcendental pursuits of self-inquiry and self-knowledge. The development of this element is mainly rooted in the philosophical foundations of both yoga and mindfulness, but it is also worked according to positive psychology components such as the importance of finding and giving meaning to life, the appreciation of beauty and excellence, gratitude, hope, humor, and spirituality (Peterson & Seligman, 2004). Through *Transcendence*, participants were stimulated to dis-identify themselves from their ever-changing realities and concerns, see them from different lenses, and ultimately transcend them through a self-transforming-creative attitude leading to new opportunities, perspectives, possibilities, situations, and realities. In addition, the transcendent and creative aspects embedded in this element were underlined for optimizing the processes of acquiring and integrating new knowledge through a meaningful learning experience. Though theory and practice derived from all four foundations were used for teaching *Transcendence*, there was a focus on yoga and mindfulness meditative practices, as well as on reflective debates and discussions about their various philosophical grounds with an emphasis on how to apply them to real-life situations.

Measures

Demographic Questionnaire

It included a range of items prompting participants to provide descriptive information about their age, gender, years of musical practice, enrolment in elective subjects, level of education, grade year, instrumental specialty, weekly minutes of home-CRAFT-based practice, the frequency to which they applied the practices learned in the program to their daily lives through a 10-point visual analog scale ranging from "0" or "never" to "10" or "always," current engagement in physical activity, hours of physical activity, and current involvement in other yoga/meditation activities different from the CRAFT-program.

Five Facet Mindfulness Questionnaire (FFMQ)

The FFMQ (Baer et al., 2006) was employed to measure mindfulness disposition. This questionnaire includes five subscales each representative of a distinct mindfulness ability: Observe (eight items; e.g., “When I’m walking, I deliberately notice the sensations of my body moving”), Describe (eight items; e.g., “I’m good at finding words to describe my feelings”), Act Aware (eight reversed items; e.g., “When I do things, my mind wanders off and I’m easily distracted”), Non-Judge (eight reversed items; e.g., “I criticize myself for having irrational or inappropriate emotions”), Non-React (seven items; e.g., “I perceive my feelings and emotions without having to react to them”). Participants rated their level of agreement with each item according to a 5-point Likert scale ranging from 1 or “never or very rarely true” to 5 “very often or always true.” Scores can be reported for both the total scale and for each subscale and interpreted as the greater the value the higher the frequency of being mindful generically or in a particular mindfulness ability respectively. We employed the Spanish version of the FFMQ validated by Cebolla et al. (2012). For the current study sample, internal consistency was high across subscales (α ranging between 0.72 and 0.89 at Time 1).

Emotional Regulation Questionnaire (ERQ)

The ERQ (Gross & John, 2003) was used to assess emotional regulation disposition. The ERQ includes two subscales representative of two different emotional regulation strategies: Cognitive Reappraisal (six items; e.g., “I control my emotions by changing the way I think about the situation I’m in”), and Expressive Suppression (four items; e.g., “I control my emotions by not expressing them”). Participants rated each item according to a 7-point Likert scale ranging from 1 or “strongly disagree” to 7 or “strongly agree.” Results are reported separately for each subscale with higher scores suggestive of a greater tendency of adopting that particular emotional regulation strategy. We administered the Spanish version of the ERQ validated by Cabello et al. (2013). For the current sample, Cronbach alpha was 0.87 and 0.78 for these subscales respectively at Time 1.

Subjective Psychological Well-Being Subscale (SPWS)

The SPWS was utilized to measure psychological well-being. This 30-item subscale belongs to a larger 65-item psychological well-being questionnaire (Sánchez-Cánovas, 1998) that includes also three more subscales of material, working, and partner relationships well-being. The SPWS mainly emphasizes aspects of well-being (e.g., “I believe I am in good health”), happiness (e.g., “I feel well with myself”), and other mainstream concepts of

positive psychology such as focusing on what goes right in life (e.g., “I am accustomed to seeing the favorable side of things”), resilience (e.g., “I believe I can overcome my weaknesses and mistakes”), optimism (e.g., “I feel optimistic”), savoring (e.g., “I enjoy having meals”), and meaning (e.g., “I think everything is interesting”). Participants rate the items according to a 5-point Likert scale ranging from 1 or “never or almost never” to 5 or “always,” applicable to the current stage of their lives, with higher values in the total SPWS score suggestive of a greater tendency of experiencing higher Subjective Psychological Well-being. Cronbach alpha for the current study sample was 0.94 at Time 1.

Depression Anxiety and Stress Scale (DASS-21)

The DASS-21, which is the shorter version of the original DASS (Lovibond & Lovibond, 1993), was administered to evaluate psychological distress. This questionnaire comprises three subscales including 7 items each for Depression (e.g., “I couldn’t seem to experience any positive feeling at all”), Stress (e.g., “I found it hard to wind down”), and Anxiety (e.g., “I was aware of dryness of my mouth”) respectively. Participants rate each item following a 4-point Likert scale ranging from 0 or “Did not apply to me at all” to 3 “Applied to me very much or most of the time” during the past week. The final scores must be multiplied by two, being higher scores indicative of higher depression, stress, or anxiety. Scores can be reported for both the total psychological distress scale as well as for each subscale and interpreted as the greater the value the higher the prevalence of being afflicted by emotional symptoms associated with these conditions. We administered the Spanish version of the DASS-21 validated by Bados et al. (2005). For the current study sample, Cronbach alpha at Time 1 was 0.85, 0.81, and 0.93 for the Depression, Anxiety, and Stress subscales respectively. Due to an editing error in the process of typesetting the survey into Google docs, a 5-point Likert scale ranging from 0 to 4 was inserted and used for participants to rate each item. To ensure all participants’ scores ranged, as in the original survey, from 0 to 3, we made the following data point proportional conversions: all 0 data points remained as 0; 1 to 0.75; 2 to 1.5; 3 to 2.25, and 4 to 3. Such a conversion gave us the possibility to approximately interpret participants’ degree of severity per subscale according to the recommended cutoff points of the survey.

Sit and Reach Test (SRT)

Due to the physical component developed through the CRAFT program and the physical demands of higher

education student musicians, we decided to include at least one physical measure in our research design. The SRT protocol was utilized to measure hip and trunk flexion (Hoeger et al., 1990). Participants were first instructed to adopt a sitting position with knees extended and ankles flexed so that the soles of their feet were resting on the box. Second, participants placed one hand over the other and performed a hip forward bending to reach as far as possible with the index fingers sliding on the measuring tape. As the participant reached the final position and held it for one to 2 s, the measurement was taken. All participants executed one practice trial to familiarize themselves with the SRT protocol. Subsequently, they performed the test twice and the best score was used for analyses. Greater scores (cm) are indicative of higher lower-body flexibility with the zero point (line of the feet) at 23 cm.

Feasibility

Feasibility was evaluated based on six of the eight domains for devising feasibility studies proposed by Bowen et al. (2009).

Demand It was examined by developing an extensive literature review of higher education student musicians' well-being and academic demands relative to the four foundations of the program. Furthermore, it was also assessed by exploring how much *demand* for yoga/meditation training existed in the sample, not only to learn further about participants' interest in mind–body therapies, but also to better estimate the appropriate sample size needed for a larger scale CRAFT-based intervention.

Implementation It was evaluated as to whether the program was successfully delivered as planned in relation to its objectives, contents, practices, and number of sessions completed, canceled, and/or postpone. Moreover, other aspects of consideration were related to the viability of implementing on-site testing resources, successful completion of the measurement, and any potential issues related to survey/test fatigue.

Practicality It was examined based on participants' attendance rate and self-reports of daily practice.

Adaptation It was addressed by tailoring the program components and practices to the particular demands of higher education student musicians, and if applicable within this population, to the specific needs of each individual. Also, *adaptation* was considered in relation to the potential unexpected events that could lead to a change within pre-established intervention procedures.

Integration It was assessed through the analysis of the demographic questionnaire item that invited participants

to self-report the frequency to which they transferred their CRAFT-learning experience to their daily life following a 10-point visual analog scale ranging from “0” or “never” to “10” or “always.”

Limited Efficacy It was examined according to the preliminary effectiveness of the CRAFT program to improve the Time 1–Time 2 outcome measures as inferred from both statistical and practical significance including effect sizes and respective 95% CI.

Data Analysis

Descriptive statistics were computed to summarize participants' demographic characteristics and Time 1–Time 2 (T1–T2) outcome measures using means and standard deviations for the continuous variables and counts and frequencies for the categorical ones. For the T1–T2 dependent variables, normality was assessed by the Shapiro–Wilk test. Statistical significance was tested through two-tailed paired samples *t*-tests if normality was met at both T1 and T2 and through two-tailed Wilcoxon's signed-rank tests if data were not normally distributed at either T1 or T2. In addition, we also examined the practical significance of each T1–T2 variable by calculating the effect size (ES) and corresponding 95% CI. ES was calculated as Cohen's *d* average, using the average standard deviation between T1 and T2, $\frac{M_{T2} - M_{T1}}{SD_{T2} + SD_{T1}}/2$, (Lakens, 2013). As recommended by Hedges and Olkin (1985), particularly for small samples, all Cohen's *d* values were corrected for bias by multiplying them by the following correction factor formula for paired sample designs, $1 - \frac{3}{8(n-1)-1}$, yielding an unbiased Cohen's *d*, also named Hedges' *g*. To compute the 95% CIs, we used the central *t* distribution method (Cumming et al., 2007; Goulet-Pelletier & Cousineau, 2018; Nakagawa & Cuthill, 2007) whereby the upper and lower ends of the 95% CIs were obtained by adding *g* to the product between the standard error (SE) and the equivalent critical *z*-scores of the 97.5 (i.e., +1.96) and 0.025 (i.e., –1.96) quantiles of a standard normal *t* distribution respectively, $CI = g \pm 1.96 \times SE$. The *SE* of the CI was derived using Becker's (1988) formula for paired samples, $SE = \sqrt{\frac{2(1-r_{1,2})}{n} + \frac{g^2}{2(n-1)}}$, extracted from Nakagawa and Cuthill (2007), whereby *r* is the correlation coefficient between T1 and T2. Subsequently, to better interpret the values obtained at both Time 1 and Time 2, ES and 95% CI derived from the comparison of the current study T1–T2 outcome measure mean scores and those of comparable studies (e.g., validation studies with Spanish samples of FFMQ and ERQ; see Table 4) were computed. In this case, Hedges' *g* was calculated using the pooled standard deviation, whereas the 95% CIs were derived employing the central *t* distribution method as explained in Hedges and Olkin (1985). Practical significance was met if 95% CIs of ESs (*g*) did not include the null value of zero (Coe, 2002) and was

interpreted using Cohen's (1988) d ES benchmarks of small ($0.20 \leq d < 0.50$), medium ($0.50 \leq d < 0.80$), and large ($d \geq 0.80$). IBM SPSS v. 25 was used to analyze the data of the demographic questionnaire. T -tests and ESs with 95% CIs were analyzed through Excel 2020 Software.

Lastly, to determine whether the large amount of CRAFT participants who did not contribute to the completion of Time 2 assessments may have revealed any valuable information serving feasibility purposes, one-way ANOVAs and Chi-square tests of independence were conducted to determine whether there was any difference in any of the continuous and categorical variables, respectively, under study (i.e., demographics and main outcome measures) at Time 1 between CRAFT participants who completed both Time 1 and Time 2 assessments ($n = 26$; Time 1–Time 2 assessed CRAFT participants) and those who only completed Time 1 assessments ($n = 47$; Time 2 unassessed CRAFT participants) for at least one of these variables under study.

Results

The main purpose of the current study was to examine the feasibility and preliminary effectiveness of the CRAFT program to engender mindfulness skills and improve the physical, psychological, and emotional well-being and academic experience of higher education student musicians. To that end, the current study results were derived from the examination of eight feasibility domains proposed by Bowen et al. (2009).

Demand

The elaboration of our literature review was the first instrumental process serving feasibility purposes for the current study. Therein, we identified and justified the need of implementing and investigating the newly developed CRAFT program to help higher education student musicians cope with their physical, psychological, and emotional well-being and academic demands. Second, we attempted to consider the research demands of both randomized controlled trials—entailing more stringent lifestyle restrictions and inclusion criteria to control for the potential effects of confounding factors—and naturalistic studies, involving minimum researchers' meddling within participants' behaviors for preserving higher real-life conditions and ecological validity (Verster et al., 2019). Bearing that in mind, we conducted analyses for both a total sample and a filtered sample after excluding those participants who had reported other out-of-CRAFT yoga/meditation experience by both Times 1 and 2. Table 1 displays the demographic characteristics of participants across both samples. In the total sample, 7 participants, 27%, were involved in regular yoga/meditation practices other than those learned in the CRAFT program

by Time 1, which increased up to 10 participants, 39%, by Time 2. Amongst these 10 participants, 4 of them, 16%, learned mind–body practices related to yoga and/or meditation in the elective subject Ergonomics, while the other six, 24%, out of the conservatory. Accordingly, it could be tentatively inferred that approximately 40% of the participants that would be recruited in a further study, conducted at the same institution, should be excluded or used their experience level as a covariate to determine the effectiveness of the CRAFT program. Therefore, such a drop-off should be taken into consideration when conducting a priori power analyses.

Implementation

The entire curriculum designed for each CRAFT-based elective subject was fully covered. Except for the unimparted sessions—1-h lesson per each class—to facilitate recruitment and Time 1 data collection, all other sessions scheduled in the academic calendar were delivered as planned. Though the program implementation had to be interrupted during public holidays, participants were urged to keep weekly home-based practice. All participants completed the tests and surveys, at both Times 1 and 2, within the 50-min timeframe previously estimated and with no apparent signs/complaints of survey/test fatigue. The inclusion of testing resources, and particularly, the technological ones (i.e., laptops), was rather cumbersome as classrooms in the conservatory were not appropriately equipped for e-learning. This led to logistic challenges relative to managing a *portable lab* from class to class at Time 1. In addition, though at Time 2 a reserved room was designated as the common testing site, putatively offsetting logistic difficulties, 71 out of the 100 participants recruited a Time 1 did not complete Time 2 assessments, which considering the re-configuration of the current investigation as a single-arm pre-post study design including only CRAFT participants, it would represent a 64% Time 2 assessment attrition rate (i.e., 47 Time 2 unassessed CRAFT participants out of the initial sample of 73 CRAFT participants who completed Time 1 assessments). However, it should be noted that such a substantial loss of assessment participation was not an actual dropout rate in a traditional sense that indicates a level of engagement with the program (see practicality domain below). Instead of revealing a lack of interest in the program, the high dropout rate was potentially and largely due to the fact that post-test assessments were scheduled at extracurricular hours due to examination constraints (see procedures).

Practicality

As confirmed by the program deliverer, all students met the minimum 80% attendance rate requirement for successfully completing their curricular instruction in the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence, and therefore,

Table 1 Participants' demographic characteristics

| Variables | Total sample (<i>n</i> = 25) | Filtered sample (<i>n</i> = 15) |
|---|-------------------------------|----------------------------------|
| Age | 21.20 ± 1.96 | 21.33 ± 1.95 |
| Years of musical practice | 12.94 ± 2.41 | 13.37 ± 1.91 |
| Gender | | |
| Females | 19 (76%) | 11 (73%) |
| Enrolled in CRAFT-based Elective Subjects | | |
| Mindfulness | 16 (64%) | 7 (47%) |
| Emotional intelligence | 5 (20%) | 4 (27%) |
| Mindfulness and emotional intelligence | 4 (16%) | 4 (27%) |
| Enrolled in other elective subjects | | |
| English | 5 (20%) | 3 (20%) |
| Ergonomics | 4 (16%) | 0 (0%) |
| Choir | 4 (16%) | 2 (13%) |
| History of jazz | 3 (12%) | 2 (13%) |
| German | 3 (12%) | 0 (0%) |
| Level of education | | |
| High School | 16 (64%) | 9 (60%) |
| Bachelor's degree | 6 (24%) | 4 (27%) |
| Unreported | 3 (12%) | 2 (13%) |
| Grade year | | |
| Second | 9 (36%) | 5 (33%) |
| Third | 14 (56%) | 9 (60%) |
| Fourth | 2 (8%) | 1 (7%) |
| Other yoga/meditation experience | | |
| Time 1—out of the conservatory | 3 (12%) | NA |
| Meditation | 2 | |
| Yoga | 1 | |
| Time 2—out of the conservatory | 6 (24%) | NA |
| Meditation | 3 | |
| Yoga | 2 | |
| Yoga and meditation | 1 | |
| Ergonomics | 4 (16%) | NA |
| Engagement in physical activity | | |
| Time 1 | 13 (52%) | 9 (60%) |
| Hours/week | 4.65 ± 3.01 | 4.78 ± 3.5 |
| Time 2 | 13 (52%) | 9 (60%) |
| Hours/week | 4.92 ± 3.38 | 3.78 ± 2.23 |

Values are mean ± SD or *n* (%); NA not applicable

we can be confident that all participants fulfilled this criterion. In the total sample, at Time 1, participants indicated on average 115.62 (*SD* = 143.61, *median* = 60) min of home-CRAFT-based practice, increasing at Time 2 to 151.42 (*SD* = 103.69, *median* = 120) min. These figures were higher in the filtered sample at both Time 1 and Time 2, respectively, 142.33 (*SD* = 103.69, *median* = 90), and 167.14 (*SD* = 120.41, *median* = 120) min.

Adaptation

From a programmatic perspective, different adaptations were made by the program deliverer such as affording

different physical practice alternatives and employing props to accommodate the specific postural needs and/or musculoskeletal problems of participants enrolled in the CRAFT-based elective subject of Mindfulness. Also, the various group reflective debates were tailored to particularly address the common physical, emotional, cognitive, and psychological demands experienced by student musicians and guide them on how to apply the practices learned in the program to better cope in real-life situations. In an attempt to adapt to a large estimated Time 2 assessment attrition rate due to changes in the testing schedule and location at Time 2, participants were offered one Elective Credit in exchange

for completing their participation in the study. Despite the incentive, 64% Time 2 assessment attrition rate was reported upon completion of Time 2 assessments.

Integration

The total study sample that completed the Time 1–Time 2 outcome measures averaged a frequency of daily life program application of 7.16 ($SD=2.03$) at Time 1, and 8.25 ($SD=1.11$) at Time 2. Similarly, slightly higher values were observed in the filtered sample, 7.67 ($SD=1.54$) and 8.53 ($SD=2.03$) at Times 1 and 2 respectively, for this parameter.

Limited Efficacy

Table 2 displays the CRAFT-program preliminary effectiveness results reported in terms of both statistical and practical significance for all Time 1–Time 2 outcome measures across the total and filtered sample including also comparative data from previous studies. Only the DASS-21 Depression subscale in both samples and the ERQ Suppression and DASS-21 Anxiety subscales in the total sample did not meet normality. As explained in the procedure section, the physical test data from those participants enrolled in the CRAFT-based elective subject of emotional intelligence ($n=6$) were not included in the SRT test analysis. Additionally, in the filtered sample, the SRT data from those participants who reported any yoga-based training engagement different from the CRAFT program at Times 1 and 2—ergonomics ($n=3$) and yoga out of the conservatory ($n=3$) were excluded for analysis. However, the SRT scores from those participants who engaged in non-CRAFT-based meditation only ($n=3$) were used for analysis as meditation per se does not directly work to develop hamstring or trunk flexibility. For all the other Time 1–Time 2 dependent variables, the filtered sample included the scores of those participants who did not report any outside yoga/meditation experience.

In the FFMQ, practically and statistically significant increases were reported in the total sample for the Observe, $t(24)=3.16$, $p=0.004$, $g=0.44$, 95% CI (0.13, 0.73) and Describe, $t(24)=2.21$, $p=0.037$, $g=0.38$, 95% CI (0.04, 0.72) subscales as well as the total scale, $t(24)=2.58$, $p=0.016$, $g=0.28$, 95% CI (0.05, 0.52). A similar pattern of statistically and practically significant results was evidenced in the filtered sample for the same variables. All FFMQ reported effect sizes (ES) were small, except for the medium ES found for the subscales of Observe and Describe in the filtered sample. The mean scores for the Observe subscale in the total sample at both Time 1, $g=0.68$, 95% CI (0.28, 1.09), and Time 2, $g=1.09$, 95% CI (0.69, 1.50), as well as the Describe, $g=0.44$, 95% CI (0.04, 0.84), and Non-React, $g=0.63$, 95% CI (0.23, 1.04), subscales at Time 2 were higher than the scores reported by Cebolla et al. (2012)

when validating the Spanish version of the FFMQ ($n=462$, $M_{\text{age}}=27.4$ years, $SD=8.3$) in a sample whereby 68% of participants were undergraduate and graduate university students. A similar pattern of results was observed when making such a comparison with the filtered sample mean scores of the aforementioned subscales, except for the Describe subscale that achieved neither statistical nor practical significance at Time 2, $g=0.49$, 95% CI (−0.02, 1.01).

For the ERQ, the Reappraisal subscale scores increased significantly, both statistically and practically, in the total sample, $t(24)=2.79$, $p=0.010$, $g=0.43$, 95% CI (0.11, 0.75) displaying a small ES, whereas a trend towards significance was reported in the filtered sample, $t(14)=1.88$, $p=0.080$. Interestingly, only in the filtered sample, a statistically and practically significant reduction was evidenced in the ERQ Suppression subscale, $t(14)=2.76$, $p=0.015$, $g=-0.52$, 95% CI (0.20, 0.97), with a medium ES. The Reappraisal subscale mean scores of the total, $g=0.52$, 95% CI (0.13, 0.92), and filtered, $g=0.55$, 95% CI (0.04, 1.07), sample at Time 2 were higher than those reported by Cabello et al. (2013) when validating the Spanish version of the ERQ ($n=866$, $M_{\text{age}}=39.80$ years, $SD=14.82$), whereas only the Suppression subscale mean scores of the filtered sample at Time 2 were higher compared to those of the former study, $g=-0.63$, 95% CI (−1.15, −0.12).

In terms of the SPWS, a statistically and practically significant increase was observed for both the total, $t(24)=2.65$, $p=0.014$, $g=0.32$, 95% CI (0.06, 0.58), and filtered sample, $t(14)=3.38$, $p=0.004$, $g=0.59$, 95% CI (0.20, 0.97), with a small and medium ES respectively. The SPWS mean scores in the total sample were higher than the average values reported by Sánchez-Cánovas (1998) for the age range 17–25 years ($n=188$) at Time 1, $g=0.45$, 95% CI (0.04, 0.88), and Time 2, $g=0.78$, 95% CI (0.36, 1.21), falling within the 65th and 80th percentiles, respectively. In the filtered sample, the SPWS mean scores were even higher at Time 1, $g=0.58$, 95% CI (0.06, 1.12), and Time 2, $g=1.15$, 95% CI (0.62, 1.69), than those of the total sample when compared to the average values of Sánchez-Cánovas (1998) reaching the 70th and the 90th percentiles, respectively.

Regarding the SRT, a significant increase, both statistically and practically, was reported across the total, $t(19)=3.90$, $p=0.001$, $g=0.39$, 95% CI (0.15, 0.61), and filtered sample, $t(13)=2.55$, $p=0.024$, $g=0.33$, 95% CI (0.04, 0.62), showing a small ES. However, the SRT results in the total sample of the current study were lower compared to those reported by Araújo et al. (2020) in a cross-sectional study conducted to evaluate the physical fitness level of conservatory students ($n=483$), at both Time 1, $g=-1.08$, 95% CI (−1.49, −0.68), and Time 2, $g=-0.70$, 95% CI (−1.11, −0.30), falling within the fitness category *Needs Improvement* for the age range 20–29 according to previous normative data (ACSM, 2014). A similar pattern of results

Table 2 CRAFT program effectiveness of total and filtered samples for main outcome measures determined through statistical and practical significance with comparative data

| Surveys ($n_{Total}=25, n_{Filtered}=15$) & tests ($n_{Total}=20, n_{Filtered}=14$) | Time 1 _{Total} | | | Time 2 _{Total} | | | Time 1 _{Filtered} | | | Time 2 _{Filtered} | | | Comparative data ¹ | | | Test statistics ^a | | | Effect sizes ^d _{Total} | | | Effect sizes ^d _{Filtered} | | | | |
|---|-------------------------|-------|--------|-------------------------|--------|-------|----------------------------|-------|--------------------|----------------------------|--------------------|-------|-------------------------------|-------|---------------------------|------------------------------|----------------|-------|--|-------------|-------|---|--------|-------|----|--|
| | M | SD | | M | SD | | M | SD | | M | SD | | M | SD | | P_{Total} | $P_{Filtered}$ | g | 95% CI | UL | LL | g | 95% CI | UL | LL | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FFMQ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Observe (8–40) | 27.44 | 5.59 | 29.68 | 4.53 | 27.40 | 6.08 | 30.67 | 4.53 | 23.6 ^e | 5.6 | 23.6 ^e | 5.6 | 23.6 ^e | 5.6 | <.01 ^b | <.01 ^b | 0.44 | 0.14 | 0.73 | 0.60 | 0.22 | 0.60 | 0.22 | 0.98 | | |
| Describe (8–40) | 29.32 | 6.62 | 31.52 | 4.82 | 28.93 | 6.42 | 31.87 | 4.76 | 28.7 ^e | 6.5 | 28.7 ^e | 6.5 | 28.7 ^e | 6.5 | <.05 ^b | <.05 ^b | 0.38 | 0.04 | 0.72 | 0.51 | 0.02 | 0.51 | 0.02 | 1.00 | | |
| Act Aware (8–40) | 24.96 | 7.64 | 25.12 | 7.96 | 26.73 | 6.82 | 27.40 | 6.75 | 27 ^e | 6.6 | 27 ^e | 6.6 | 27 ^e | 6.6 | .87 ^b | .53 ^b | 0.02 | -0.22 | 0.26 | 0.10 | -0.21 | 0.10 | -0.21 | 0.40 | | |
| Non-Judge (8–40) | 25.24 | 7.94 | 25.44 | 8.51 | 27.27 | 6.17 | 28.00 | 7.73 | 26.8 ^e | 7.4 | 26.8 ^e | 7.4 | 26.8 ^e | 7.4 | .85 ^b | .55 ^b | 0.02 | -0.22 | 0.27 | 0.10 | -0.22 | 0.10 | -0.22 | 0.42 | | |
| Non-React (7–35) | 22.08 | 4.67 | 23.44 | 4.50 | 22.60 | 4.55 | 23.13 | 5.14 | 20.6 ^e | 4.5 | 20.6 ^e | 4.5 | 20.6 ^e | 4.5 | .11 ^b | .51 ^b | 0.29 | -0.07 | 0.65 | 0.11 | -0.21 | 0.11 | -0.21 | 0.42 | | |
| Total (39–195) | 129.04 | 21.65 | 135.20 | 21.24 | 132.93 | 18.08 | 141.07 | 19.21 | - | - | - | - | - | - | .02^b | < .05^b | 0.28 | 0.05 | 0.52 | 0.42 | 0.07 | 0.42 | 0.07 | 0.78 | | |
| ERQ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reappraisal (1–7) | 4.83 | 1.27 | 5.33 | 1.00 | 4.90 | 1.32 | 5.36 | 0.90 | 4.80 ^f | 1.01 | 4.80 ^f | 1.01 | 4.80 ^f | 1.01 | .01^b | .08 ^b | 0.43 | 0.11 | 0.75 | 0.41 | -0.02 | 0.41 | -0.02 | 0.84 | | |
| Suppression (1–7) | 3.35 | 1.24 | 3.13 | 1.49 | 3.18 | 0.90 | 2.61 | 1.21 | 3.39 ^f | 1.23 | 3.39 ^f | 1.23 | 3.39 ^f | 1.23 | .29 ^c | < .05^b | -0.16 | -0.44 | 0.13 | -0.52 | -0.93 | -0.52 | -0.93 | -0.12 | | |
| SPWS (30–150) | 113.40 | 16.48 | 118.64 | 15.44 | 115.53 | 16.98 | 124.40 | 12.35 | 106 ^g | 16.23 | 106 ^g | 16.23 | 106 ^g | 16.23 | .01^b | < .01^b | 0.32 | 0.06 | 0.58 | 0.59 | 0.20 | 0.59 | 0.20 | 0.97 | | |
| DASS-21 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depression (0–42) | 9.48 | 8.04 | 8.94 | 7.07 | 7.9 | 5.27 | 7 | 6.15 | 6.29 ^h | 6.76 | 6.29 ^h | 6.76 | 6.29 ^h | 6.76 | .49 ^c | .24 ^c | -0.07 | -0.26 | 0.12 | -0.15 | -0.40 | -0.15 | -0.40 | 0.09 | | |
| Anxiety (0–42) | 17.88 | 10.62 | 17.82 | 10.74 | 15.20 | 7.68 | 13.6 | 7.31 | 6.02 ^h | 5.61 | 6.02 ^h | 5.61 | 6.02 ^h | 5.61 | .95 ^c | .28 ^b | -0.01 | -0.20 | 0.19 | -0.21 | -0.59 | -0.21 | -0.59 | 0.17 | | |
| Stress (0–42) | 20.40 | 9.02 | 21.12 | 9.12 | 18.10 | 5.39 | 18 | 6.66 | 13.92 ^h | 7.65 | 13.92 ^h | 7.65 | 13.92 ^h | 7.65 | .58 ^b | .96 ^b | 0.08 | -0.20 | 0.36 | -0.02 | -0.62 | -0.02 | -0.62 | 0.59 | | |
| Total (0–126) | 95.52 | 49.91 | 95.76 | 48.77 | 82.40 | 26.95 | 77.20 | 32.66 | - | - | - | - | - | - | .96 ^b | .43 ^b | 0.01 | -0.20 | 0.21 | -0.17 | -0.58 | -0.17 | -0.58 | 0.24 | | |
| SRT (cm) | 15.25 | 10.87 | 19.5 | 10.93 | 16.11 | 11.07 | 19.96 | 11.71 | 27.33 ⁱ | 11.16 | 27.33 ⁱ | 11.16 | 27.33 ⁱ | 11.16 | < .001^b | < .05^b | 0.39 | 0.15 | 0.61 | 0.34 | 0.04 | 0.34 | 0.04 | 0.62 | | |

FFMQ, Five Facet Mindfulness Questionnaire; *ERQ*, Emotional Regulation Questionnaire; *SPWS*, Subjective Psychological Well-Being Subscale; *DASS-21*, Depression Anxiety and Stress Scale; *SRT*, Sit and Reach Test; g = Hedges' g = Cohen's d corrected for bias. *CI*, confidence interval of effect size (Hedges' g); *UL*, upper limit; *LL*, lower limit; bold font denotes significance

^aStatistical significance is achieved if $p < .05$; ^b p -values from two-tailed paired t -test for normally distributed variables

^c p -values from two-tailed Wilcoxon's Signed-Rank Test for not normally distributed variables

^dPractical significance is determined through effect sizes (Hedge's g), achieved if CI does not include the null value of zero, and interpreted following Cohen's (1988) d benchmarks: small (0.20 $\leq d < 0.50$), medium (0.50 $\leq d < 0.80$), and large ($d \geq 0.80$)

^eCebolla et al. (2012); ^fCabello et al. (2012); ^gSánchez-Cánovas (1998); ^hBados et al. (2005); ⁱAraújo et al. (2020); ^jSince Cabello et al. (2012) only reported the ERQ means and corresponding standard deviations for male ($M_{Reappraisal}=4.73, SD=1.03; M_{Suppression}=3.80, SD=1.22$) and female ($M_{Reappraisal}=4.85, SD=1.00; M_{Suppression}=3.15, SD=1.24$) participants separately, the weighted mean and pooled standard deviation from the former values were computed to report the ERQ descriptive statistics of Cabello et al. (2012) from a total sample of male and female participants altogether as in the current study and the other comparable studies

was observed when comparing the mean SRT scores of the filtered sample with those of Araújo et al. (2020).

No significant results were reported in the FFMQ subscales Act Aware, Non-Judge, and Non-React, nor for any of the three subscales of the DASS-21 across both samples. Furthermore, no significant changes were observed for the ERQ Suppression subscale mean scores in the total sample. In comparison to the mean scores reported in the validation study of the DASS-21 using a Spanish sample (Bados et al., 2005) formed by psychology university students ($n=365$; age range=20–25 years), the total sample of the current study reported higher levels of depression at Time 1, $g=0.47$, 95% CI (0.06, 0.87), anxiety at Time 1, $g=1.96$, 95% CI (1.54, 2.39), and Time 2, $g=1.95$, 95% CI (1.52, 2.38), and stress at Time 1, $g=0.84$, 95% CI (0.43, 1.25) and Time 2, $g=0.93$, 95% CI (0.52, 1.34), with a similar pattern of results observed for the Anxiety and Stress subscales in the filtered sample. The mean level of psychological distress based on identified cutoff severity values for the survey was *Normal* for depression in both the total and filtered sample at Time 1 and Time 2; *Severe* for anxiety at Time 1 for the Total and filtered sample, while *Severe* and *Moderate* at Time 2 for the total and filtered sample, respectively; and *Moderate* in the total sample but *Mild* in the filtered sample for stress at both Time 1 and Time 2.

Lastly, there were no significant differences between Time 1 and Time 2 assessed CRAFT participants and Time 2 unassessed CRAFT participants at Time 1 for all outcome measures (i.e., FFMQ, DASS, SPWS, ERQ, and SRT), main demographics (i.e., age, gender, hours of physical activity per week, engagement in physical activity, other yoga meditation experience, enrollment in CRAFT-based elective subjects, level of education), and other variables (i.e., home-based practice and frequency of daily life program application) under study. There were significant differences for years of musical practice, $F(1,71)=4.43$, $p=0.04$, whereby Time 2 unassessed CRAFT participants reported significantly more years of musical practice, 14.32 ($SD=2.81$) than Time 1–Time 2 CRAFT participants, 12.94 ($SD=2.40$); and grade year, $\chi^2(3)=12.07$, $p<0.007$, whereby most Time 2 unassessed CRAFT participants were undertaking the second, 32%, and fourth, 40% grade year level at Time 1. It could be tentatively argued that the extra academic pressures experienced by those 4th-year level students who were about to complete their degrees may have also contributed—along with the changes in the testing site and schedule bound to examination constraints—to the lack of participation reported at Time 2.

Discussion

This study examined the feasibility and preliminary effectiveness of the newly developed CRAFT program to enhance higher education student musicians' physical, psychological,

and emotional well-being and academic experience. To that end, we tested feasibility based on the evaluation of six of the eight feasibility domains recommended by Bowen et al. (2009).

The results provided preliminary evidence undergirding a high feasibility of the CRAFT program to engender mindfulness skills, emotional regulation strategies, psychological well-being, flexibility, and a series of perceived benefits across various dimensions of well-being in relation to the five elements of the program. In addition, the findings informed relevant aspects that should be considered for successfully planning and conducting further large-scale investigations. Along these lines, the evaluation of *demand* revealed that, in order to power a future controlled design study at the same institution, it should be accounted that approximately 40% of the prospective CRAFT sample might be simultaneously involved in other non-CRAFT-yoga/meditation training, and therefore, potentially disregarded or considered for co-variate analyses. Furthermore, though the program *implementation* occurred as planned, there were various issues that limited the *implementation* of the research procedures. A major inconvenience was that due to examination constraints, the testing location and schedule during Time 2 assessments were shifted from participants' respective classrooms to an appointed common room and from curricular to extracurricular times. This unexpected procedural change might have led to the substantial Time 2 assessment attrition rate despite offering Elective Credits to participants at Time 2 as an *adaptation* to compensate for such a foreseeable drop-off. The issue casts doubt on the appropriateness of participants' commitment to the study requirements, especially when additional effort could be needed from them due to unexpected circumstances. Therefore, a potential solution to protect against survey-test attrition rate from such eventualities could be to offer additional incentives to participants right from the recruitment phase. From a programmatic perspective, *adaptation* was also successfully accomplished by tailoring the program to target the general well-being and academic concerns of higher education student musicians and particularly, when applicable, to the individual needs they could be experiencing. Moreover, the evaluation of *practicality* revealed that participants' weekly fidelity of home-based practice of 151.42 ($SD=103.69$) and 167.14 ($SD=120$) minutes in the total and filtered sample respectively was consistent with previous yoga and mindfulness-based interventions followed by tertiary students (Falsafi, 2016; Tang et al., 2020). Furthermore, none of the participants, either contributing or not to the second time of assessment (Time 1–Time 2 assessed CRAFT participants and Time 2 unassessed CRAFT participants), withdrew from the program training and all of them achieved the 80% attendance rate requirement to successfully complete their CRAFT-based instruction. Thus, participants' level of engagement with the program appeared to be acceptable, even if 47 (64%) CRAFT participants from the original

sample of 73 CRAFT participants did not complete Time 2 assessments. Therefore, along these lines, we deem it relevant to underline that such a substantial Time 2 assessment drop-out rate referred only to Time 2 unassessed CRAFT participants and did not indicate, in any case, discontinuation from and/or lack of participation with the program.

Regarding the preliminary effectiveness of the program for the Time 1–Time 2 outcome measures, our results met our initial hypothesis, with both statistically and practically significant differences, across both samples for the FFMQ in the total scale and the subscales of Observe and Describe, the SPWS, and the SRT; the ERQ Cognitive Reappraisal subscale in the total sample; and the ERQ Suppression subscale in the filtered sample. Our FFMQ results partially aligned with those of other mindfulness-based interventions that reported significant improvements in the Observe and Non-Judge subscales (Steyn et al., 2016) and all FFMQ subscales (Czajkowski et al., 2022) amongst higher education music students. Though we did not find significant differences for the FFMQ subscales of Act Aware, Non-Judge, and Non-React, all mean scores across both samples exhibited the expected Time 1–Time 2 upward pattern. An array of plausible explanations for the absence of significant results for these FFMQ subscales could include the low dosage of program delivery, the fact that participants had already completed 3 months of program instruction before undertaking Time 1 assessments, fluctuations related to how much actual fidelity of program delivery and practice was accomplished in accordance to the CRAFT program contents and objectives, and the differential emphasis that could have been placed on developing certain mindfulness components and/or attitudes over the others.

The current study results of increased dispositional mindfulness and cognitive reappraisal can be partially explained by the explanatory model proposed by Garland et al. (2009). The authors contended that the practice of mindfulness meditation promotes a metacognitive mechanism of disidentification and broader cognition from which new creative perspectives and insights might emerge to potentially re-construct one's primary appraisals positively. In a further study that supported their model, Garland et al. (2011) found significant increases in the total scale of the FFMQ and the Cognitive Reappraisal subscale of the Cognitive Emotional Regulation Questionnaire on a sample of 339 participants following an 8-week Mindfulness-Based Stress and Pain Management Program. Hierarchical regressions showed that mindfulness scores at Time 2 were predicted by the change in positive reappraisal and vice versa, suggesting that these two parameters might reciprocally boost each other in alignment with the positive feedback loop between positive emotions and broadened cognition explained in the broaden-and-build theory (Fredrickson, 2004). Similarly, in the CRAFT program, a mindful metacognitive process

potentially leading to a cognitive reappraisal strategy is facilitated through different types of yoga and mindfulness meditations (e.g., focused attention, mantra, open-monitoring, and loving-kindness and compassion meditations; Fox et al., 2016) as a pathway for nurturing meta-creativity, wisdom and knowledge, and a self-transforming-creative attitude that might give rise to new perspectives and opportunities. Furthermore, other resources integrated as part of the program drawn from positive psychology-based components such as focusing on the positive aspects of one's life, the appreciation of beauty and excellence, gratitude, hope, and humor (Peterson & Seligman, 2004) could have also promoted positive reappraisal.

An interesting finding relative to the ERQ analysis was that only in the filtered sample the subscale of Expressive Suppression achieved significance. This result aligns with our expectation that instruction in the CRAFT program would induce a positive effect on reducing expressive suppression, being in turn, consistent with those of previous researchers reporting such an effect through a Kripalu yoga-based intervention for improving posttraumatic stress disorder symptoms (Dick et al., 2014). A possible mechanism behind this potential effect could lie on the basis that both yoga and mindfulness practitioners are encouraged to observe their internal events and experiences (e.g., thoughts, feelings, and emotions) with a non-judgmental and acceptance-based attitude (Gard et al., 2014; Menezes et al., 2015; Shapiro et al., 2006), thus, putatively protecting them from engaging in either avoidance, aversive, or suppressive-related behaviors. Another plausible explanation could be found in the antithetical self-regulatory approach between using and/or developing expressive suppression versus mindfulness-based describing/expressive strategies of such internal experiences. In the current study, the FFMQ Describe subscale scores were significantly improved from Time 1 to Time 2 which supports the notion that participants following a mindfulness-based intervention will be more likely to engage in expressive rather than suppressive self-regulatory processes. Additional evidence in support of these aforementioned contentions can be identified in studies whereby negative associations between mindfulness and expressive suppression have been documented (Brockman et al., 2017; Ma & Fang, 2019; Parmentier et al., 2019). Furthermore, the significant reduction in the Expressive Suppression subscale in the filtered sample of the current study was coupled with a trend towards significance in the Cognitive Reappraisal subscale. Whether CRAFT program exposure alone was more effective than other forms of yoga/meditation training for enhancing emotional regulation requires further examination with more highly powered controlled studies. It seems that the existing literature does not show any studies examining the effect of an intervention on dispositional mindfulness and emotional regulation amongst

student musicians. The current study results along with those of Garland et al. (2009), Garland et al. (2011), and Dick et al. (2014) appear to support the role of both yoga and mindfulness training to stimulate adaptive emotional regulation strategies (e.g., cognitive reappraisal) while downregulating maladaptive ones (e.g., expressive suppression). These findings could also have further implications in terms of the potential influence of mindfulness as an adaptive emotional regulation training to mediate student musicians' learning processes and academic performance. In a recent study, Peistaraitė and Clark (2020) found a significant positive correlation between cognitive reappraisal and self-regulated learning coupled with negative correlations between the former and expressive suppression, rumination, and repression on a sample of 334 professional musicians. Drawing from this combined evidence, further research should investigate the effect of mindfulness-based interventions on dispositional mindfulness, emotional regulation strategies, and self-regulated learning amongst student musicians.

In terms of the psychological well-being improvements, our results compared favorably with those reported in other yoga and mindfulness-based interventions conducted with higher education students using self-reported measures of positive and negative affect (Jarry et al., 2017), subjective well-being (De Vibe et al., 2013; Tang et al., 2020), and mental health (Akhtar et al., 2013). Additionally, based on previous normative values (Sánchez-Cánovas (1998), the SPWS scores reported in the current study at Time 2 achieved the 80th and 90th percentiles in the total and filtered sample, respectively. The SPWS contains various positive psychology components of well-being such as eudaimonic and hedonic happiness, resilience, optimism, and meaning. In the CRAFT program, not only these components are explicitly worked on drawing from the theories, methods, and practices of positive psychology but also from those of the other three foundations of the program. For instance, through the cultivation of positive psychology components such as gratitude and savoring as well as strengths and virtues, participants might have learned to appreciate and value to a greater extent not just particular aspects of their life but also their life as a whole. Positive psychology interventions using such components have led to improvements in happiness, well-being, resilience, positive affect, and psychological well-being (Martínez-Martí et al., 2010; Mongrain & Anselmo-Matthews, 2012; Sin & Lyubomirsky, 2009; Smith & Hanni, 2019). In addition, the CRAFT program's emphasis on promoting *flow* through the different mindful concerts and improvisations might have also contributed to developing happiness and meaningful lived experiences derived from heightened states of absorption, self-awareness, self-control, and a harmoniously ordered consciousness (Csikszentmihalyi, 1990). Similarly, yoga and mindfulness practice, which have been also linked to nurturing flow states, gratitude, and meaningful living (Ivtzan &

Papantoniou, 2013), might have induced an overall increase in both physical and mental well-being through its different components (e.g., ethical, breathing, postural, and meditative). Such yoga and mindfulness components have been referenced to stimulate top-down and bottom-up processes of high and low brain networks that instigate the activation of the relaxation response, vagal nerve, and parasympathetic nervous system to synergically downregulate the hypothalamic–pituitary–adrenal-axis and stress response (Chiesa et al., 2013; Fox et al., 2016; Gard et al., 2014; Sullivan et al., 2018).

Regarding physical fitness, the significant SRT improvements for the current study sample are consistent with previous *Hatha* yoga interventions with university students (Smith et al., 2011; Tran et al., 2001). Although participants' scores at Time 2 did not meet appropriate levels of lower body flexibility according to previous normative values (ACSM, 2014), being lower than those reported in a recent cross-sectional study conducted with conservatory students (Araújo et al., 2020), a major proportion of participants across the total, 52%, and filtered, 40%, the sample did not engage in any type of physical activity. Moreover, the program's dose of delivery of physical components was limited to 15 min per class, and though participants adhered to CRAFT home-based practice, it is unclear how much of this time was spent on physical practice. Notwithstanding, considering the high sedentarism in the sample and the low programmatic dosage of physical components, we found a small effect for lower body flexibility. The benefits associated with engaging in physical activities across multiple dimensions of well-being have been widely documented (Walsh, 2011). More specifically for the current sample, the development of physical qualities such as flexibility and strength have been recommended as proactive therapeutic processes for both prevention and treatment of PRMD (Araújo et al., 2020; Heming, 2004), a major problem amongst students musicians that has been attributed to various physical risk factors such as excessive practice, lack of physical condition, and muscular tiredness (Cruder et al., 2020; Rodríguez-Romero et al., 2016). In addition, in the current study only 13, 52%, and 9, 60%, participants respectively met previously recommended guidelines of weekly hours of physical activity (World Health Organization, 2010). Therefore, further CRAFT-based interventions implemented in conservatory settings should increase the dosage of physical components, determine its fidelity of practice, and include other recommended physical outcome measures (e.g., strength, pulmonary and cardiovascular functions, and other flexibility parameters; Araújo et al., 2020) in their research design.

Contrary to our expectations, we did not find significant Time 1-Time 2 differences in psychological distress across both samples in any of the DASS-21 subscales and the total scale. The scores for depression were interpreted as *Normal* in both cases and this was indicative of a floor effect

whereby the lack of significance could be attributable to participants' absence of depressive symptoms. However, in the filtered sample, anxiety and stress fell within the *Moderate* and *Mild* cutoff categories respectively, whereas in the total sample in the *Severe* and *Moderate* ones. Whether participation in the CRAFT program was influential to reduce anxiety and stress needs further investigation, given also the fact that Time 1 assessments were conducted after participants had completed 3 months of program instruction. An additional caveat was that due to a typesetting error, item rating ranged from 0 to 4, and although we made the necessary adjustments to convert it to the original range (0 to 3), the interpretation of the DASS-21 results according to pre-established cutoff values should be taken with caution.

Limitations and Future Research

The current study has various limitations. First and foremost, this investigation was initially conceived as quasi-experimental control designed study involving three distinct groups of participants that received instruction in the CRAFT program with a different emphasis regarding the preponderance of components springing from two of its foundations (e.g., Mindfulness and Emotional Intelligence). However, due to a substantial Time 2 assessment attrition rate as a result of changes in the testing site and schedule, it was reframed as a single-arm pre-post quasi-experimental study to examine the feasibility and preliminary effectiveness of the CRAFT program to improve various health and well-being outcomes amongst student musicians. Thus, it remains unclear to what extent the results herein reported stemmed from instruction in the CRAFT program with a slightly different emphasis in course content depending on which precise CRAFT-based elective subject(s) they were enrolled in. Nonetheless, except for the physical protocol that was only administered in the CRAFT-based elective subject of Mindfulness, all CRAFT participants involved in the current study received full instruction in the CRAFT program (see Supplementary Table). Hence, the findings derived from the re-configuration of the initial research design into a single-group pre-post feasibility study set also a valuable point of reference for future studies whereby the CRAFT program will be implemented. In addition, although the findings presented herein appear to be promising and supportive of the CRAFT program's potentiality to improve dispositional mindfulness and emotional regulation, psychological well-being, and lower body flexibility, we remain cautious since no definite conclusions and generalizations seem plausible given the small sample-sized group and uncontrolled design of the current study. Nevertheless, besides using classical null hypothesis testing to estimate the odds of finding an effect, we inferred also the magnitude of such effect as well as its precision through the use of effect sizes and 95% confidence intervals respectively, applying

recommended computations to remove bias from small samples (Cumming et al., 2007; Hedges & Olkin, 1985). An additional advantage of determining practical significance was that our results were also reported in standardized metrics for meaningful comparisons and meta-analytic purposes.

A second limitation was that Time 1 assessments were conducted after participants had already completed 3 months of program attendance, which did not allow us to determine whether there had been an effect due to the program during this period. Thus, baseline assessments must be conducted before the onset of the program in further research to determine the effectiveness of the CRAFT program. A third limitation was the low dosage of program delivery. Although we attempted to compensate for this by encouraging and monitoring fidelity of practice over time, further research should determine whether doses higher than 50–60 min of CRAFT training per week could eventuate in greater effects. A fourth limitation was the high heterogeneity of the sample in terms of participants' self-selection choices in elective subjects and yoga/meditation instruction. However, it should be acknowledged that self-selection is what typically occurs in our communities, entailing hence, a meaningful value on its own to be captured through naturalistic research lenses. The inclusion of a total and a filtered sample was a way to concomitantly control for the research demands of both naturalistic and randomized controlled studies respectively, therefore paving the way for future CRAFT-based investigations of both designs.

Lastly, due to response burden, we limited our choice of measures to examine a series of physical (SRT), psychological (DASS-21), emotional (ERQ), mindfulness (FFMQ), and well-being (SPWS) related variables highly intertwined with both the multidimensional demands affecting higher education student musicians and the four CRAFT foundations, albeit with more emphasis on yoga and mindfulness. However, further CRAFT-based research should also consider the inclusion of other instruments to provide better coverage of additional relevant components specifically related to the CRAFT foundations of positive psychology (e.g., creativity, gratitude, and meaning) and emotional intelligence (e.g., empathy, social skills) such as the Abbreviated Torrance Test for Adults (Goff & Torrance, 2002) as well as the Gratitude (McCullough et al., 2002) and Meaning in Life (Steger et al., 2006) questionnaires, for the former, or the Trait Emotional Intelligence Questionnaire and the Mayer-Salovey-Caruso Emotional Intelligence Test (O'Connor et al., 2019), for the latter. In this vein, considering the CRAFT program's highly multifaceted approach, future research should also incorporate in-depth qualitative methods such as semi-structured interviews and practice logs to delve into a greater understanding of participants' lived experience with the program and their perceived benefits derived from it.

Despite these limitations, overall, the evaluation of the feasibility domains of Bowen et al. (2009) showed that the

implementation of the CRAFT program was satisfactorily demanded by participants, easily implemented within the students' curriculum as an elective subject, practically adhered to and integrated by them into their daily lives, and easily adapted to their specific needs. In terms of the preliminary effectiveness, our findings suggest that the CRAFT program appears to be a feasible approach to enhance higher education student musicians' mindfulness and emotional regulation abilities of cognitive reappraisal and expressive suppression; psychological well-being; and physical flexibility. Although this evidence is promising, further research with various arms and higher dosages of program delivery within both naturalistic and randomized controlled designs integrating quantitative and qualitative methods are needed to substantiate these findings.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s12671-022-01976-7>.

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Author Contribution LJB and CK conceived this study. MJF, MPP, and MO secured funding for the larger research project. MPP conducted the program and carried out the planning, selection, adaptation, and/or creation of the practices and components delivered as part of the CRAFT program. MJF, MO, and LJB collected the data. LJB conducted the statistical analyses. CK, MJF, MO, and MAI reviewed the statistical analyses and provided project oversight. LJB wrote the main draft of the study, and all authors contributed to the writing.

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Data Availability The datasets presented in this article are not readily available because it was informed in the participants' consent form that all data collected for this study would be used anonymously for their analysis and further publication in a collective manner, but never individually. The participants recruited in this study constitute a small sample from just one institution (Royal Conservatory of Music Victoria Eugenia, Granada, Spain) and from specific reduced courses. Therefore, even considering that participants used an alphanumeric code to safeguard their anonymity, in some instances, they could be potentially identifiable. Nevertheless, any queries about the availability of the datasets to be used for research purposes can be directed to MJF, mjfunes@ugr.es, or LJB, javier.bartos@autuni.ac.nz.

Declarations

Ethical Standards Ethical approval to conduct this study was granted by the University of Granada Institutional Review Board (no. 477/CEIH/2018 and n° 1009/CEIH/2019) and according to the ethical standards established in the 1964 Declaration of Helsinki and subsequent amendments. All recruited participants provided written informed consent before embarking upon this study.

Conflict of Interest The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest. We acknowledge that one of the authors (MPP) developed the CRAFT program. However, as stated in the author's contributions statement, MPP did not conceive this particular study and also was not responsible for the data collection nor the data analysis stages of this study, which was also a way to manage this particular potential conflict of interest.

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