

Examining factors affecting youth value of mindful living in a short-term non-formal educational mindfulness program

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Abstract

The purpose of this study was to examine factors that affect youth value of mindful living, namely, selected demographic variables, awareness of mental events, awareness of physical sensations, and non-judgment of emotional experience. This quantitative study utilized a paper and pencil survey method to address the study objective. Study participants were youth who attended the two-hour non-formal educational Mindfulness Moments: Today and 4-Life program in Summer 2019 at 4-H camps. Most of the youth agreed or strongly agreed they valued mindful living. The results of the Pearson correlation coefficient test showed a very strong significant association between youth value of mindful living and awareness of mental events and awareness of physical sensations. A moderate significant association was identified between youth value of mindful living and nonjudgement of emotional experience. The results of chi-squared analysis showed a significant relationship between youth value of mindful living and gender. There were not significant relationships found between youth value of mindful living and religiosity and prior experience with mindfulness. Youth who are more aware and mindful during mindfulness programming are more likely to value mindful living. Practitioners of youth mindfulness programs in 4-H camp and other Extension education settings may want to focus on helping youth develop mindfulness skills before emphasizing the value of mindful living, as more mindful youth had higher values of mindful living in this study. Extension professionals may want to give more attention to boys in introductory mindfulness programming. Future studies should study factors that influence youth value of mindful living in other non-formal programming settings, especially 4-H camp and other Extension education settings. Future studies should pilot study surveys and utilize random sample methodology.

Keywords: youth mindfulness program; 4-H programming; extension education; state mindfulness; factors of mindfulness; value of mindfulness.

Introduction

Many studies have assessed factors that influence trait mindfulness for youth and adults (Broderick & Metz, 2009; Brown et al., 2011; Greco et al., 2011; Mendelson et al., 2010; Walach, et. al., 2006). However, the literature review revealed that no published study has assessed youth value of mindful living. There is a need to better understand factors that affect youth value of mindful living, specifically in a non-formal educational setting, such as 4-H camp, to deepen the mindfulness and Extension education literature. The present study examined the gaps in the literature related to mindfulness for youth in Extension education settings. The study also aimed to assess selected factors contributing to youth value of mindful living, including factors of state mindfulness (awareness of mental events, awareness of physical sensations, non-judgement of emotional experience) and selected

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demographics (gender, religiosity, prior experience with mindfulness) in a non-formal educational setting, specifically 4-H Camps hosted by Extension.

Cooperative Extension System, 4-H, and 4-H Camp

4-H camp, the setting where the present study was conducted, is a youth activity that is part of the 4-H component of the Cooperative Extension System. The Cooperative Extension System has been providing research-based educational programming to communities for over 100 years, and the 4-H program was established in the early 1900s (USDA, 2019; Van Horn et al., 1998). The 4-H program falls under the Extension program area of Families, Youth and Communities and provides research-based, non-formal education and leadership development to the youth of America. Through projects and club work, 4-H offers youth various opportunities, including leadership development programs (Hoover et al., 2007). The 4-H program promotes learning by doing for youth members, which are ages 5-19. Members take a variety of projects and learn life skills through hands-on activities such as involvement in projects, summer camp, public speaking contests, teen leadership opportunities, and board youth representative memberships. 4-H leadership educational opportunities help foster personal growth for youth by completing projects and presenting the results to their peers through demonstrations and illustrated talks (Hoover et al., 2007). 4-H youth can also participate in conferences, school-based enrichment activities, and programming within 4-H camp settings to enhance their leadership development (Hoover et al., 2007). Camp has been an effective vehicle for 4-H youth development programming in the past, and Le (2014) reported success of mindfulness programming in a 4-H camp setting. However, there is a lack of published studies examining youth mindfulness programming in 4-H camp settings.

Theoretical Framework

Mindfulness Programs for Youth

Research suggests mindfulness programs can benefit adults, but scholars recommend more research on mindfulness programming for youth (Greenberg & Harris, 2012). Specifically, Greenberg and Harris (2012) identify the importance of “developing a more rigorous scientific base” for studies related to mindfulness programs for children, recommending future researchers pay attention to study design, developmental appropriateness, clarity of description of the programs or activities, and frequency and intensity of program and activities”. Mindfulness studies among youth with demonstrated impact in school settings and camp settings will now be discussed.

Youth Mindfulness Programs in Educational Settings

There are various approaches to teaching mindfulness to youth within a formal educational context. Programs within school settings often use mindfulness as a theoretical foundation, utilize a program manual, are taught by a trainer outside of the school system, and include at least one of the following common components: breath awareness, working with thoughts and emotions, psycho-education, application of mindfulness to daily life, group discussion, body-scan, home practice, kindness practice, body-practices (such as yoga), and mindful movement (Burke, 2009; Zenner et al., 2014). Zenner, Herrnleben-Kurz and Walach’s (2014) review of literature identified that the majority of studies in school settings utilized a manualized program, such as Learning to BREATHE or MindfulSchools (Biegel & Brown, 2010; Broderick and Metz, 2009; Franco Justo, 2009; Franco Justo et al., 2011; Joyce et al., 2010; Mendelson et al. 2010; Metz et al. 2013; Napoli et al., 2005; Potek, 2012; Schonert-Reichel & Lawlor, 2010; White, 2012). These reviewed programs were delivered in classrooms by both teachers and outside instructors. Program lengths varied from five weeks to 24 weeks. These mindfulness programs provided youth with various benefits.

The following benefits showed statistically significant improvements for youth who participated in mindfulness programs. Benefits for youth's mental health included reduced anxiety (Franco Justo et al., 2011; Napoli et al., 2005; Potek, 2012), reduced rumination on negative thoughts (Mendelson et al. 2010), reduced occurrence of intrusive thoughts (Mendelson et al., 2010; Metz et al., 2013), reduced emotional arousal (Mendelson et al., 2010), decreased negative effect or outlook (Broderick & Metz, 2009; Schonert-Reichel & Lawlor, 2010), improved executive control (Biegel & Brown, 2010), and reduced depression (Joyce et al., 2010). The programs also provided significant improvements for youth by providing them with various soft skills, all of which occurred at a high level of significance. Increased soft skills included increased verbal creativity (Franco Justo, 2009), improved academic performance (Franco Justo et al., 2011), improved social skills (Joyce et al., 2010; Napoli et al., 2005), increased in emotional regulation (Metz et al. 2009; Schonert-Reichel & Lawlor, 2010; White, 2012), and improved behavior (Schonert-Reichel & Lawlor, 2010).

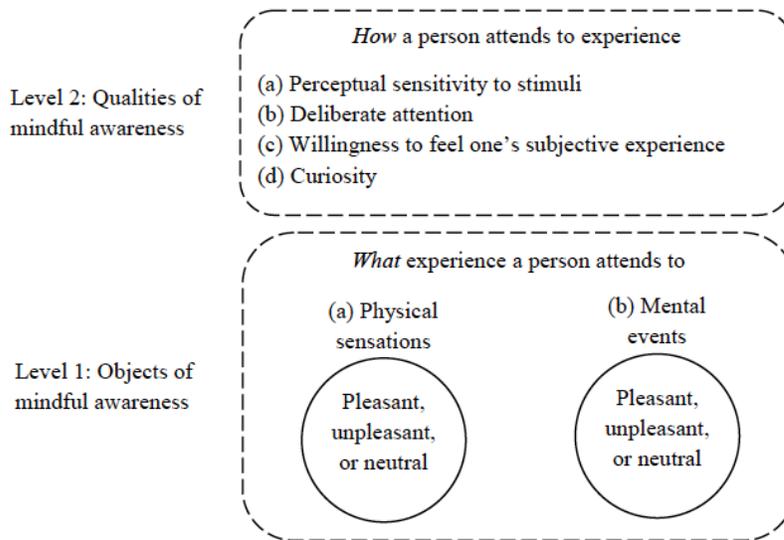
Youth Mindfulness in 4-H Camp Settings

Despite the abundance of youth mindfulness studies in a formal educational context, there is a lack of these studies in a non-formal educational context, specifically at 4-H camps and within Extension program settings. Two Extension studies were identified that measured youth mindfulness at a short-term mindfulness program for 4-H youth (Le, 2014; Lewis et al., 2020). Le (2014) studied youth mindfulness at a 4-H military kids' camp. The results showed that the program provided youth with stress management skills. Lewis et al (2020) studied both youth and adult mindfulness in a 4-H camp setting. The author found that after the program, adults and youth felt they could apply mindfulness in their lives, but the adult participants felt most confident.

Measuring Mindfulness in a Program Setting

Existing studies assessed trait mindfulness on both a single factor scale (Brown et al., 2011; Greco et al., 2011; Walach et al., 2006) and multiple factor scales (Baer et al., 2004; Baer et al., 2006; Cardaciotto et al., 2008; Feldman et al., 2007; Li et al., 2016; Tanay & Bernstein, 2013). Previous studies of mindfulness examined mindfulness over several week programs or served as a baseline to measure trait mindfulness (Baer et al., 2004; Baer et al., 2006; Cardaciotto et al., 2008; Feldman et al., 2007; Li et al., 2016; Tanay & Bernstein, 2013). The present study assessed subjects participating in a short-term mindfulness program. Therefore, the study can be classified as one that assessed state mindfulness, which is different from trait mindfulness. Trait mindfulness looks at the development of mindfulness traits and characteristics in an individual over time, usually several weeks, while state mindfulness looks at one's experience of mindfulness during a short period of time, such as during a two-hour workshop (Tanay & Bernstein, 2013).

Tanay and Bernstein's (2013) mindfulness model of state mindfulness (as cited in Ruimi, et al., 2019) (see Figure 1) served as part of the theoretical framework to measure state mindfulness in the study. Tanay and Bernstein (2013) created the State Mindfulness Scale (SMS) to measure physical sensations and mental events in adults during a short-term mindfulness program. The authors emphasized that that the instrument can "(a) broadly contribute to study of mindfulness as a state-like mental behavior in addition to a trait, process, and practice; (b) contribute to research on the mechanisms of mindfulness, from psychological to neurocognitive levels of analysis, by permitting sound measurement of mindfulness as a state-like mental behavior in the present moment; and (c) provide clinicians and researchers a simple, yet robust tool with which to evaluate state mindfulness" (p. 1297).

Figure 1*Tanay & Bernstein's Two-level Model of State Mindfulness*

Note: Tanay, G., & Bernstein, A. (2013). State Mindfulness Scale (SMS): Development and initial validation. *Psychological assessment, 25*(4), 1286.

Figure 1 shows the two levels of state mindfulness: qualities of mindful awareness and objects of mindful awareness. Level 2 includes how a person attends to an experience, namely through perceptual sensitivity, deliberate attention, willingness to feel one's subjective experience, and curiosity. Level 1 includes what a person attends to, including both physically and mentally, and how they relate it as pleasant, unpleasant, or neutral.

Cox et al. (2016) modified Tanay and Bernstein' (2013) State Mindfulness Scale with a group of adults during physical activities. The authors confirmed that state mindfulness of the mind and state mindfulness of the body were two distinct measures within the construct of state mindfulness. While Tanay and Bernstein's (2013) instrument measured physical sensations and mental events during mindfulness programs, no items measured how participants viewed their emotional experience. Ruimi et al. (2013) modified Tanay and Bertstein's model (2013) and measured the qualities of mindful awareness and how a person relates to their experience utilizing the two original mind and body constructs.

Previous mindfulness research suggests that perceptions of emotions and nonjudgement should be measured as a separate factor of mindfulness, due to the inclusion of this factor in other mindfulness models (Li et al., 2016; Baer et al., 2004; Baer et al., 2006). The Five Factor Mindfulness Questionnaire (FFMQ) (Baer et al., 2006) was designed to measure change in mindfulness overtime (trait mindfulness), rather than change in mindfulness in the case of a short-term mindfulness program (state mindfulness). Therefore, the authors added this to the instrument for the present study to measure nonjudgement level of participants during the mindfulness program.

Youth value of mindful living was another construct added to the study instrument. Niemec (2012) defined mindful living as a state of being where "individuals apply heightened awareness to their relationships, health behaviors, and activities of daily life, while considering the impact of these on

society” (p.22). Essentially, mindful living is the application of mindfulness as a holistic lifestyle, rather than a task an individual sets time aside for each day. Mindfulness is defined many ways and cited many times in academic and popular literature. However, there was no research found related to mindful living and youth mindful living, including scholarly definitions of these phenomenon, and an instrument that assessed youth value of mindful living was not readily located.

Awareness of Mental Events

Awareness of mental events was also a construct for the study instrument. Mindfulness aims to teach detachment and distancing oneself from mental events (Shapiro et al. 2006). Thus, it is important to determine participants’ experience of awareness of mental events during a mindfulness program. Awareness of mental events has been assessed in previous youth mindfulness studies (Mendelson et al. 2010; Broderick & Metz, 2009). Awareness of mental events involves being aware of thoughts, feelings, and emotions in the mind. Teasdale et al. (2002) discussed the concept of awareness of mental events using the term “metacognitive awareness”, which is defined as how one can separate thoughts, feelings, and emotions from oneself and consider them in an objective way. Awareness of mental events has also been referred to as simply “awareness” (Cardaciotto et al., 2008; Feldman et al., 2007), “state mindfulness of the mind” (Tanay & Bernstein, 2013), and “observe”, which included both observation of events occurring in the mind and in the body (Baer et al., 2006).

Awareness of Physical Sensations

Awareness of physical sensations involves observing what is felt in the body (Baer et al., 2004). This phenomenon may include noticing body-mind connection, the temperature in a space, the sense of touch, or anything else a person can physically sense (Powers-Barker et al., 2018). Awareness of physical sensations also involves the ability to bring awareness to the five senses. Previous mindfulness studies have examined this concept and reported reliable measures (Baer et al., 2004; Bluth et al., 2015).

Non-Judgment of Emotional Experience

Non-judgement of emotional experience was the final construct for the study instrument. Non-judgment of emotional experience is a component of mindfulness that involves accepting one’s emotional experience, without labeling it as good or bad (Kabat-Zinn, 2012). Kabat-Zinn (2012) explains that this approach involves the individual making peace with thoughts, emotions, and feelings rather than allowing them to impact one’s mood or self-worth. The non-judgment of emotional experience concept discussed in the literature was explained by using various forms of the phenomenon. Bluth et al. (2015) assessed ability to not judge one’s internal experiences using the Children and Adolescent Mindfulness Measure (CAMM) (Greco et al., 2011) to assess awareness of the present moment and ability to accept one’s internal emotional experiences.

Most previously developed instruments in the mindfulness literature measured mindfulness as a trait, not as a state during a mindfulness workshop session. Trait mindfulness refers to mindfulness as a skill that can be practiced and improved overtime, while state mindfulness refers to an individual’s awareness during a specific amount of time. Items from the reviewed instruments to measure non-judgment of emotional experience are used to assess change overtime due to participants’ behavior in a long-term mindfulness program. The present study aimed to examine how youth experienced non-judgment of emotional events during the workshop session, not in their daily lives. Therefore, for this study we adapted items from the FFMQ (Baer et al., 2006) to fit a state mindfulness context in a short-term mindfulness program for youth.

Purpose and Research Questions

The purpose of this study was to investigate factors that affect youth value of mindful living and to address the lack of youth mindfulness studies in a non-formal educational context, specifically at 4-H camps hosted by Extension. This study examined the relationship between youth value of mindful living and selected demographic variables (gender, religiosity, prior experience with mindfulness) and youth factors of state mindfulness (awareness of mental events, awareness of physical sensations, and non-judgment of emotional experience). Three research questions guided the research study:

R1: What is the youth value of mindful living, non-judgment of emotional experience, awareness of physical sensations, and awareness of mental events among study participants?

R2: What is the relationship between youth value of mindful living and non-judgment of emotional experience, awareness of physical sensations, and awareness of mental events?

R3: Does youth perception of value of mindful living differ based on gender, religiosity, and prior experience with mindfulness?

Method

Type of Research

A quantitative method was used for this study based on a descriptive-correlational research design. A paper and pencil survey method was utilized. The instrument helped to assess factors that may affect value of mindful living for youth audiences in a short-term mindfulness programming context. The research design helped the authors to describe youth populations of this study with respect to the dependent variable (youth value of mindful living) and a set of selected demographic factors, namely gender, religiosity, and prior experience with mindfulness and factors of state mindfulness, namely awareness of mental events, awareness of physical sensations, and non-judgment of emotional experience.

Population

The study population was a convenience sample of subjects attending mindfulness programming at study sites. The study population was comprised of 65 4-H members from both Ohio and Pennsylvania 4-H camps. The study participants were 4-H members in Ohio and Pennsylvania who attended selected sites in summer 2019 and the *Mindfulness Moments: Today and 4-Life* program. Sites were recommended to the authors by the Pennsylvania 4-H staff. An additional site with Ohio 4-H was recruited by the Ohio 4-H Camping Specialist and added by the authors. Study participants were attendees for the following Ohio and Pennsylvania 4-H events in 2019: 4-H Camp Hervida in Waterford, Ohio; 4-H Camp Kaneshatake in Spruce Creek, Pennsylvania and the Pennsylvania 4-H State Leadership Conference in State College, Pennsylvania. 4-H was chosen for the non-formal educational organization to conduct the present study due to the lack of literature on mindfulness programming for youth in informal settings. In concert, a 4-H partnership was the most feasible non-formal educational youth organization to partner with, as the 4-H administration building was located on the same campus where the lead author was completing her graduate work.

Instrumentation

The study instrument was designed using two previously developed instruments, in addition to items adapted and developed by the authors. The previously validated instruments included the Five-Factor Mindfulness Questionnaire (FFMQ) and the State Mindfulness Scale (SMS). The Five Facet Mindfulness Questionnaire (FFMQ), had a Cronbach's alpha of .87, indicating the instrument is reliable and competent (Baer et al., 2006). The State of Mindfulness Scale (SMS), had a Cronbach's alpha of .92, indicating the instrument is reliable and competent (Tanay & Bernstein, 2013). The instruments were used to measure awareness of mental events, awareness of physical sensations, and non-judgment of emotional

experience constructs. The authors adapted items from these constructs to fit a youth audience, a short-term mindfulness programming context, and a 4-H camp context. The authors used reverse coding for the non-judgement of emotional experience construct to analyze the data. Youth value of mindful living construct questions were developed by the authors after reviewing Niemec's (2012) definition of mindful living. The authors developed the youth value of mindful living scale because this scale was not incorporated into Tanay and Bernstein's model (2013). The Pennsylvania 4-H state leader, five faculty members from Penn State University, one faculty member from Ohio State University, an Extension Specialist from Ohio State University Extension, and a 4-H Extension Educator from Ohio State University Extension helped establish content and face validity for the instrument. The summary of instruments used in this study is shown in Table 1, including the reliability coefficient for each construct. Each of the survey constructs will be now discussed in more detail. The instrument is available from the authors upon request.

Table 1

Summary of Instruments Used in the Research Study

<i>Instrument</i>	<i>Variable Measured</i>	<i>Scale</i>	<i>Cronbach alpha original / (from this study)</i>	<i>Total items (Items adapted for this research)</i>
Five Factor Mindfulness Questionnaire (FFMQ)	Non-judgment of emotional experience	5-point Likert scale from 1=Strongly disagree to 5=Strongly agree	.87(.92)	8(5)
State Mindfulness Scale (SMS)	Awareness of mental events	5-point Likert scale from 1=Strongly disagree to 5=Strongly agree	.91-.96(.91)	17(5)
State Mindfulness Scale (SMS)	Awareness of physical sensations	5-point Likert scale from 1=Strongly disagree to 5=Strongly agree	.85-.89(.89)	5(5)
Youth Value of Mindful Living Scale	Youth value of mindful living	5-point Likert scale from 1=Strongly disagree to 5=Strongly agree	(.93)	5(5)*

*Note: These items were developed by the authors.

The authors based the visual design of the survey based on existing studies, taking into consideration a youth audience context. Christian and Dillman (2004) found that symbols and graphical language can impact survey design. The authors noted that double-banking questions can cause participants to ignore the lower line, so this method was not utilized in this study. In concert, Christian and Dillman (2004) found where special instructions were needed, better response rates and quality were observed when these were placed before the question. In the present study, different instructions were placed before each survey section. In concert, Dillman et al. (2014) note that using images can help focus a respondent on the content of the study rather than on the source of the study itself and feel more connected to a survey. A review of previously conducted youth program evaluation instruments from Ohio 4-H and the UNESCO youth leadership program provided further support for incorporating related images into the survey (Ohio 4-H, 2019; Redman & Brennan, 2013).

Awareness of Mental Events (from SMS)

We adapted the awareness of mental events construct to apply to a youth audience from Tanay and Bernstein's (2013) State Mindfulness of the Mind instrument. The original instrument had 23 items, and 17 items comprised the State Mindfulness of the Mind construct. We adapted 5 of these 17 items for our instrument for a youth audience. The Cronbach's alpha for this sub-scale ranged between .91 and .96, indicating high reliability (Tanay & Bernstein, 2013), and was measured .91 for the present study, also indicating high reliability. Table 2 provides examples of original items and adapted items. The whole instrument can be obtained from the authors upon request.

Table 2

State Mindfulness of the Mind and Awareness of Mental Events Item Comparison Examples

<i>Original Item</i>	<i>Adapted Item</i>
"I noticed pleasant and unpleasant emotions."	"I noticed feelings I liked and did not like."
"I noticed pleasant and unpleasant thoughts."	"I noticed thoughts I liked and did not like."

Awareness of Physical Sensations (from SMS)

We adapted the awareness of physical sensations construct from Tanay and Bernstein's (2013) instrument (State Mindfulness of the Body) to fit a youth audience. The original instrument had 23 items, and five items comprised the State Mindfulness of the Body construct. All five items were adapted for a youth audience and added to the present study instrument. The Cronbach's alpha for this subscale ranged between .85 and .89 in previous studies (Tanay and Bernstein, 2013), and was .89 for the present study, both indicating high reliability. Table 3 provides examples of original items and adapted items.

Table 3

State Mindfulness of the Body and Awareness of Physical Sensations Item Comparison Examples

<i>Original Item</i>	<i>Adapted Item</i>
"I noticed physical sensations come and go."	"I noticed feelings in my body come and go."
"I noticed some pleasant and unpleasant physical sensations."	"I noticed feelings I liked and feelings I did not like in my body."

Non-Judgment of Emotional Experience (from FFMQ)

The Five Factor Mindfulness Questionnaire was developed by Baer et. al. (2006). The instrument was used to measure factors of trait mindfulness. Items were adapted by the authors to fit the audience and context. The original instrument had eight items, and the present study used five items to measure this construct. The Cronbach's alpha for the original instrument was established at .87 by previous studies, indicating the instrument was reliable and competent (Baer et al., 2006) and was established at .92 for the present study, indicating high reliability. Table 4 provides examples of original items and adapted items. The authors flipped the scale when analyzing data, as a higher value indicated higher levels of state mindfulness for the other constructs.

Table 4*Non-Judgment and Non-Judgment of Emotional Experience Item Comparison Examples*

Original Item	Adapted Item
“I make judgements about whether my thoughts are good or bad.”	“I judged whether my thoughts were good or bad.”
“I think some of my emotions are bad or inappropriate and I shouldn’t feel them.”	“I thought some of my feelings were bad and shouldn’t be feeling them.”

Youth Value of Mindful Living (developed by the authors). The youth value of mindful living construct was developed by the authors after reviewing Niemec’s (2012) definition of mindful living. The construct is comprised of 5 items, and the Cronbach’s alpha was measured at .93, indicating high reliability. Examples of items are provided in Table 5.

Table 5*Youth Value of Mindful Living Item Examples*

Item Example
“I think it is important to pay attention to my thoughts.”
“I think mindfulness can make the world a better place.”

Demographics

This study measured several demographic variables. Variables included the following: gender, religiosity, and prior experience with mindfulness.

Dependent Variable. The dependent variable examined in this research was youth value of mindful living. The youth value of mindful living variable was calculated as a mean of the composite score of the youth value of mindful living items with the five items using a 5-point Likert scale, where 1=strongly disagree and 5=strongly agree.

Independent Variables. The independent variables in this research included measures of the three factors of state of mindfulness namely, awareness of mental events, awareness of physical sensations, non-judgment of emotional experience, and selected demographics.

The awareness of mental events variable was computed as a mean of the awareness of mental events construct with the five items based on a 5-point Likert-type scale from 1 = strongly disagree to 5 = strongly agree. The awareness of physical sensations variable was computed as a mean of the awareness of physical sensations construct with the five items based on a 5-point Likert-type scale, which was rated from 1 = strongly disagree to 5=strongly agree. The non-judgment of emotional experience variable was computed as a mean of the non-judgment of emotional experience score after it was flipped by the authors. A 5-point Likert-type scale from 1 = strongly disagree to 5 = strongly agree was used to rate non-judgment of emotional experience. There were multiple independent demographic variables. Youth religiosity was considered a categorical variable, where 1=yes and 2=no. Prior experience with mindfulness was recorded as a categorical variable, where 1=yes and 2=no. Gender was also treated as categorical data, where 1=male, 2=female, and 3=other.

Data Collection Procedures

The Pennsylvania State University Institutional Review Board approved this study. A recruitment letter was used to inform 4-H camp directors and parents and to recruit participants for this study. The recruitment message and the study consent form for parents were sent out with 4-H camp registration packets by each of the site coordinators. The site coordinators worked with the authors to obtain parent

permission for youth participants. Parents completed and signed a paper consent form. Study participants were informed about the study and that their participation was voluntary. Youth participants completed and signed paper assent forms as well. Moreover, an adult witness observed the assent process and also signed the assent forms. At the conclusion of the mindfulness program, youth completed the instrument.

Site Selection and Recruitment

The authors contacted the Pennsylvania 4-H program to identify camps to serve as study sites. The authors contacted the Ohio 4-H Camping Specialist to recruit another site. Three Pennsylvania 4-H campsites agreed to take part in the study: Camp Brule, 4-H Camp Kanesatake, and Northwinds 4-H Camp. Camp Brule is located in Forksville, Pennsylvania, 4-H Camp Kanesatake is located in Spruce Creek, Pennsylvania, and Northwinds 4-H Camp is located in Ulysses, Pennsylvania. However, only 4-H youth at Camp Kanesatake participated in the present study due to lack of sign-ups at Camp Brule and scheduling conflicts at Northwinds 4-H Camp. Camp Hervida in Washington County Ohio participated in the study. 4-H youth ages 10-18 at participating in the camps and who signed up for the optional program were study participants. The last site was the Pennsylvania 4-H Junior Leadership Conference Junior in State College, Pennsylvania.

The study utilized a convenience sample, as only youth who choose to attend the 4-H camp at selected sites and choose to participate in the program had the opportunity to be study participants. There were 72 4-H youth who completed the program. For the Pennsylvania 4-H Junior Leadership Conference Junior on June 21, 2019, 14 youth both completed the program and participated in the study by completing the study survey. A total of 48 youth completed the program at Camp Kanesatake on June 24-25, 2019, and 43 youth completed the program and the survey. Eleven 4-H members received the program at Camp Hervida on July 21, 2019, and eight of them completed both the program and survey. After data cleaning, there were 65 usable participant responses.

Data Analysis

Collected data were transferred into the Statistical Product and Service Solution (SPSS®) software version 24 for statistical analysis. The non-judgment of emotional experience construct used reversed coding, with lower scoring responses indicating more emotional awareness. The study population was analyzed using descriptive statistics. Frequencies were used for categorical variables, including gender, religiosity, and prior experience with mindfulness. Independent construct variables (awareness of mental events, awareness of physical sensations, non-judgment of emotional experience) and the dependent variable, youth value of mindful living, were treated as interval data. To report the perceptions of value of mindful living, non-judgment of emotional experience, awareness of physical sensations, and awareness of mental event among youth, descriptive statistics were used. Pearson's correlation test was used to examine the relationship between youth value of mindful living and non-judgment of emotional experience, awareness of physical sensations, and awareness of mental events. Davis' (1971) conventions were utilized to determine the magnitude of the relationships between variables, which are presented in Table 6.

Table 6

Davis' (1971) Magnitude of Correlation Conventions

Magnitude of Correlation Coefficient	Description
1.00	Perfect association
0.70 or higher	Very strong association
0.50 to 0.69	Substantial association
0.30 to 0.49	Moderate association
0.10 to 0.29	Low association

Table 6

Davis' (1971) Magnitude of Correlation Conventions, continued...

0.01 to 0.09	Negligible association
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*Note: adapted from Davis. J.A. (1971). "Elementary survey analysis" Englewood, NJ: Prentice-Hall.

Independent samples t-tests and chi square tests were used to examine how youth perceptions of youth value of mindful living differed based on selected demographic variables. The t-test examined the relationship between youth value of mindful living and selected demographic variables, which included youth religiosity, prior experience with mindfulness, and gender. A chi square test was also used to determine the difference between youth value of mindful living and various demographic variables, among them religiosity, prior experience with mindfulness, and gender. Only descriptive statistics were run for other demographic variables.

Results

Demographic Characteristics of Study Participants

The study population included 65 4-H members who participated in the *Mindfulness Moments: Today and 4-Life* program and completed the research instrument. Most participants considered themselves religious (68.8%). Few study participants had attended a mindfulness workshop before (9.2%). Most study participants were female (55.4%). A summary of selected demographic variables can be viewed in Table 7.

Table 7

Summary of Demographic Variables

Item	n	%
Religiosity		
Yes	44	68.8
No	20	31.3
Total	64	100.0
Previous mindfulness workshop		
Yes	6	9.2
No	59	90.8
Total	65	100.0
Gender		
Male	28	43.1
Female	36	55.4
Other	1	1.5
Total	65	100.0

Research question 1: What is the youth value of mindful living, non-judgment of emotional experience, awareness of physical sensations, and awareness of mental events among study participants? On average, participants value mindful living ($M=4.14, SD=.89$). Participants scored near average for their abilities to be aware of mental events ($M=3.68, SD=.97$), aware of physical sensations ($M=3.71, SD=.96$), and to not judge their emotional experience ($M=2.84, SD=1.05$) (See Table 8).

Table 8

Descriptive Statistics for Awareness of Mental Events, Awareness of Physical Sensations, Nonjudgment of Emotional Experience, and Youth Value of Mindful Living

Variable	<i>M</i>	<i>SD</i>
Awareness of mental events	3.68	.97
Awareness of physical sensations	3.71	.96
Nonjudgment of emotional experience	2.84	1.05
Youth value of mindful living	4.14	.89

Research question 2: What is the relationship between youth value of mindful living and non-judgement of emotional experience, awareness of physical sensations, and awareness of mental events? The results of the Pearson correlation coefficient test showed a very strong significant association between youth value of mindful living and awareness of mental events ($r = .787, p = 0.01$) and awareness of physical sensations ($r = .787, p = 0.01$). A moderate significant association was identified between youth value of mindful living and nonjudgement of emotional experience, ($r = .422, p = 0.01$). Davis' (1971) conventions were utilized to examine the magnitude of the relationship between variables. Table 9 shows the relationship between variables.

Table 9

Bivariate Correlation among Youth Value of Mindful Living and Factors of State Mindfulness

Measure	Awareness of mental events	Awareness of physical sensations	Nonjudgment of emotional experience	Youth Value of Mindful Living
Awareness of mental events	-	-	-	.787*
Awareness of physical sensations	-	-	-	.807*
Nonjudgment of emotional experience	-	-	-	.423*
Youth Value of Mindful Living	.787*	.807*	.423*	-

*Note: Correlation is significant at the 0.01 level (2-tailed).

Research question 3: Does youth perception of value of mindful living differ based on gender, religiosity, and prior experience with mindfulness? Descriptive statistical analysis was conducted for each variable of interest. Independent samples t-tests and chi square analysis were conducted to examine the difference between participants' overall value of mindful living and categorical variables, namely religiosity and gender. The descriptive statistics for youth value of mindful living in relation to youth religiosity prior experience with mindfulness, and gender are show in Table 10.

Table 10*Descriptive Statistics for Youth Value of Mindful Living*

Variable	Category	<i>N</i>	<i>M</i>	<i>SD</i>	<i>STD. Error</i>
Religiosity	Yes	43	4.26	.67	.10
	No	19	3.86	1.23	.28
Prior experience with mindfulness	Yes	6	4.50	.28	.11
	No	56	4.11	.92	.12
Gender	Male	26	3.75	.87	.17
	Female	36	4.42	.80	.13
	Other	*			

*Note: There were no valid cases for youth value of mindful living when gender = other (3.00). Statistics could not be computed for this level.

An independent samples t-test was run for each of the selected demographics variables to show their relationship between the variable and value of mindful living. Visual analysis for Q-Q plots for all of the variables showed supported the normality assumption. See Table 11.

Table 11*Independent Samples t-Test – Mean Scores of Youth Value of Mindful Living on Religiosity, Mindful Living, Prior Experience with Mindfulness, and Gender*

Items	<i>Levene's test for equality of variance</i>		<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
	<i>F</i>	<i>Sig.</i>			
Overall youth value of mindful living and religiosity	5.91	.018	1.64	60	.11
Overall youth value of mindful living and prior experience with mindfulness	4.82	.032	1.02	61	.31
Overall youth value of mindful living and gender	.510	.478	-3.00	61	.004

Levene's test shows that the assumptions of the equal variance t-test are not reasonable for mindful living and religiosity. There is not a significant relationship between youth value of mindful living and religiosity ($t(60) = 1.64, p = .11$). Levene's test shows that the assumptions of the equal variance t-test are not reasonable for youth value of mindful living and prior experience with mindfulness. There is not a significant relationship between youth value of mindful living and prior experience with mindfulness ($t(61) = 1.02, p = .31$). The mean difference was .39. Levene's test shows that the assumptions of the equal variance t-test are reasonable for youth value of mindful living and gender. Based on the independent samples t-test, there may be a significant relationship between youth value of mindful living and gender ($p < .01$). The average mean difference was .64. Chi square tests were also conducted to determine the significance of the relationship between youth value of mindful living and the following variables: religion, gender, and prior experience with mindfulness. The chi square test indicated that there was a significant relationship between youth value of mindful living and gender ($\chi^2(11, n = 63) = 23.975; p = .013$). However, the chi square test showed that there was not a significant relationship between youth value of mindful living and religion ($\chi^2(11, n = 63) = 13.710; p = .249$) and prior experience with mindfulness ($\chi^2(11, n = 63) = 15.124; p = .177$). Table 12 provides the results of chi square analysis.

Table 12

Chi-square Analysis on Association Between Youth Value of Mindful Living and Selected Demographic Variables

Demographic Factors	<i>n</i>	χ^2	<i>df</i>	<i>P</i> *
Religion	62	13.710	11	.249
Gender	63	23.975	11	.013
Experience	63	15.124	11	.177

Study Limitations

This study has limitations. The non-experimental design is limiting in nature, as there is no control group. The authors recognized that because sites and youth chose to be involved in this study, this may have impacted study results of satisfaction with the workshop due to pre-existing buy-in (Sears & Kraus, 2009). The study was also limited by three sites, as few 4-H camps in each state participated. There was no randomization of sampling because all 4-H camps in Pennsylvania and Ohio were not required to be part of this study. There were also no control groups for this study. The study used a convenience sample of 4-H program participants at selected study sites. These findings cannot be generalized to all 4-H youth or all youth across the state of Ohio and Pennsylvania because only youth attending the Ohio and Pennsylvania 4-H camps and who elected to sign up for the mindfulness program were included in the study. However, the research may provide valuable preliminary data to the Pennsylvania 4-H program in determining whether or not they wish to expand their mindfulness programming for 4-H youth across the Commonwealth of Pennsylvania. Youth programs similar to 4-H and other states may want to begin to explore this line of inquiry as well. Future studies may want to choose a stratified sample and randomly select counties or camps throughout their states to be involved in the study. Non-selected groups could serve as control groups, as most states have multiple 4-H camps each summer on a county or multi-county basis. This would allow the future researchers to be able to generalize findings. These methods were not possible in the present study due to lack of time for the lead author to complete her master's degree.

Another limitation of the study was inability to pilot this instrument due to lack of time for the lead author to complete her master's degree. Future studies should pilot the new construct before utilizing the instrument in their studies.

Discussion and Recommendations

This study makes a unique contribution to the mindfulness and Extension education literature because no previous information related to value of mindful living among a youth population was readily found. In addition, there were a lack of youth mindfulness studies conducted in a 4-H camp context. The study aimed to examine factors that affect youth value of mindful living and investigated the relationship between youth value of mindful living and awareness of mental events, awareness of physical sensations, and non-judgment of emotional experience, and selected demographic variables (gender, religiosity, prior experience with mindfulness). The study participants were youth who were religious, are new to mindfulness, and mostly female. On average, participants value mindful living ($M = 4.14$, $SD = .89$). On average, the ability to be aware of mental events was 3.68 ($SD=.97$), ability to be aware of physical sensations was 3.71 ($SD=.96$), and ability to not judge their emotional experience was 2.84 ($SD=1.05$), when measured on a 5-point Likert scale, where 1 = strongly disagree and 5 = strongly agree. There was no significant relationship found between prior experience with mindfulness and youth value of mindful living. Also, there was no significant relationships were found between religiosity and youth value of mindful living. However, a significant relationship was found between youth value of mindful living and gender ($p < .01$), where girls were more likely to have higher levels of mindfulness than boys. This may

indicate that more attention should be given to boys in introductory mindfulness programming in 4-H camp and Extension education settings. There was very strong significant association between youth value of mindful living and awareness of mental events and awareness of physical sensations ($p = .01$). This may indicate that youth who are more aware and mindful during a mindfulness programming are more likely to value mindful living. There was a moderate significant association between youth value of mindful living and nonjudgement of emotional experience ($p = .01$). This also may indicate that youth who are more aware and mindful during a mindfulness programming are more likely to value mindful living. Practitioners of youth mindfulness programs in 4-H camp and Extension settings may want to focus on helping youth develop mindfulness skills before emphasizing the value of mindful living in programming, as more mindful youth had higher values of mindful living in this study.

The present study added the component of non-judgement of emotional events into a short-term youth mindfulness program through conceptualization of state mindfulness based on the results of previous studies (Cox et al., 2016; Tanay & Bernstein, 2013) that examined state level factors of mindfulness. It is recommended that future studies of mindfulness in Extension and nonformal educational settings apply the state mindfulness model to youth populations in randomized trials to further establish the state level factors of mindfulness with the non-judgment of emotional events component in the model and determine its effectiveness for understanding state mindfulness among youth.

It is recommended that the adapted SMS model with the non-judgment component should be applied to future mindfulness research projects in randomized trials with children, especially during short-term youth mindfulness programs within Extension and nonformal educational settings. This practice would help further confirm usefulness of the model for conducting state mindfulness research in youth non-formal mindfulness programming settings.

Previous research suggests mindfulness varies by gender in formal educational settings (Gould et al., 2012), and this study supports this finding. The results of this study supported several studies that found a relationship between gender and mindfulness. Abujaradeh and colleagues (2020) also found gender to have a significant relationship between age and mindfulness in their study with an adolescent population. Carsley and Heath (2018) reported that mindfulness coloring activities more effectively prevent test anxiety in youth females than youth males. Females were more engaged and more likely to feel less stressed after a mindfulness intervention (Bluth et al., 2017). This study's findings support previous findings that stated, most of the time in youth mindfulness programming, females report higher levels of mindfulness. However, because all previous studies examined the relationship between mindfulness and gender in formal educational settings, more studies should examine this relationship in 4-H camp settings and nonformal educational settings.

Religiosity and spirituality and its relationship to mindfulness among youth have been previous areas of interest for scholars. Youth development scholars also have examined the relationship between religiosity and mindfulness. Spirituality and mindfulness have been found to help lower depression levels among youth (Greeson et al., 2015). Heaven and Ciarrochi (2010) studied high school students and found that those who were higher in mindfulness abilities were also higher in religious values. Young and Shipley (2015) support this study's findings; youth said they were not religious, but still claimed they practiced mindfulness. However, additional research comparing the relationship between youth value of mindful living and religiosity in 4-H camp and non-formal educational settings would help scholars better understand youth value of mindful living in these contexts, as there is a gap in the literature for this topic. Our study results support previous findings.

There were no studies identified in the literature review that examined how youth prior experience with mindfulness and meditation relates to selected variables. However, a few studies on this topic were conducted with adult populations. For example, Droit-Volet and Heros (2017) examined how time judgement was influenced by previous mindfulness meditation experience and found that this did not

affect time judgement for participants. However, the authors found that subjects who were more mindful did have a more drawn-out experience of time than those who had lower levels of mindfulness. Thompson and Waltz (2007) confirmed that experienced adult meditators report a heightened experience of mindfulness during meditation, are more observant, and are usually less reactive to experiences. There are no studies that examined how prior experience with mindfulness with youth impacts youth value of mindful living. Further studies should be conducted to examine this relationship in both formal educational settings and non-formal educational settings like 4-H camp to better understand how prior experience with mindfulness impacts youth value of mindful living, and other variables of interest.

Previous studies examined mindfulness abilities rather than value of mindful living. No existing studies have examined youth value of mindful living. Previous studies related to mindfulness in a 4-H camp context studied mindfulness related to limited variables, including stress management and ability to apply mindfulness after the program. These studies were evaluation-based but did not research youth experience of mindfulness during the program and how this experience related to other variables (Le, 2014; Lewis et al., 2020). In concert, previous studies that examined the relationship between mindfulness, religiosity, and prior experience with mindfulness either examined variables in a formal educational setting with youth or only with adults. More studies need to examine these variables among mindfulness programs conducted in a 4-H camp, Extension educational setting. The youth value of mindful living construct was developed by authors and added a new layer of knowledge in mindfulness literature for youth populations. Mindfulness ability may or may not be associated with youth value of mindful living in a 4-H camping context. Future studies should examine the relationship between mindfulness ability and value of mindful living in 4-H camp and Extension education settings utilizing a pilot study and randomized trials among participants.

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