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The International Journal of Research and Review
An interdisciplinary journal on various fields of the Social Sciences

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Submitted manuscript should be typed single spaced. Consult the “Publication Manual of the APA” (latest editions) for detailed guidelines in writing and formatting the manuscript.
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Exploring Self-regulatory Behaviors during Music Practice among South Asian Indian American Instrumental Students

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Abstract
This study examined the self-regulatory behaviors of 153 fifth to twelfth grade students while they practiced music at home. Data were collected using measures on self-efficacy, self-regulation, intrinsic motivation, anxiety, help-seeking, perceived responsibility, academic delay of gratification, and teacher assessment. It was hypothesized that the variables would positively correlate with each other. Second, it was expected that students’ practice of music and teacher’s rating of the students’ music practice would be mediated by self-regulation, intrinsic motivation, delay of gratification, self-efficacy, anxiety, and help seeking. Third, the study examined whether students thought that they were responsible for music practice or their teachers. Results showed that self-regulation was related to music practice, help-seeking, delay of gratification, self-efficacy, and intrinsic motivation. The results of a path analysis showed that self-efficacy had a direct or indirect effect on all the variables and self-regulation had an indirect effect on music practice. A logistic regression analysis indicated that delay of gratification predicted students’ perceived responsibility. Students who reported they were responsible for music practice had a higher tendency to delay gratification. The findings suggest that motivational, cognitive, and self-regulatory processes are important in successful music practice.

Keywords: self-regulation, music practice, self-efficacy, elementary to high school students

Introduction

Self-regulated learning is a construct that has developed over the past thirty years (Zimmerman, 2011), and it occurs when students initiate and sustain personal (e.g., cognitive, affective states) and behavioral processes (e.g., self-recording), and manage environmental factors (e.g., practicing music in a quiet place) that influence learning outcomes (Zimmerman & Kitsantas, 2005; Zimmerman, 1998; Zimmerman & Schunk, 2008). Empirical evidence suggests that self-regulated learning is a key factor in academic achievement (Pintrich & DeGroot, 1990; Schunk & Zimmerman, 1998; Winne, 2005), and it plays a major role in learning a musical instrument (McPherson & Renwick, 2011). Although research shows significant correlations between accumulated practice time and music achievement for both expert (Lehmann & Ericsson, 1997) and younger music players (Sloboda & Davidson, 1996), McPherson (2005) states that understanding children’s musical progress involves more than merely studying the relationship between their practice time and musical achievement. Learning a musical instrument requires an extensive amount of self-regulatory behaviors such as setting goals, employing effort, monitoring one’s performance, and sustaining motivation in challenging tasks (McPherson & Renwick, 2011; Nielsen, 2004).
According to Zimmerman (1998), self-regulatory behaviors are important during the initial development of music skills and subsequent performance. With this goal in mind, the present study seeks to contribute to the literature by investigating various self-regulatory behaviors South Asian American students engage in during music practice.

Zimmerman (2000) proposes that learners have the capacity to engage in cyclically self-regulated learning wherein they establish standards, set academic goals, regulate their beliefs and motivation, select learning strategies, monitor their academic progress, assess the results of their work, and optimize the physical and social environment. These self-regulatory processes are deployed during forethought, performance, and self-reflection phases (Bandura, 1997; Schunk, 2001; Zimmerman, 2000). There are many components of this cyclical model of self-regulation and below is a brief description of each. A complete and thorough description can be found in Zimmerman and Campillo (2003).

In the forethought phase, two major sources of self-regulation are task analysis and self-motivational beliefs. One key aspect of task analysis is setting goals and another is strategic planning to accomplish those goals. According to Zimmerman (2011), setting goals and implementing strategic planning to achieve them depends on students’ motivational beliefs. He outlines four motivational beliefs, namely, self-efficacy, outcome expectancies, task interest, and goal orientation. Self-efficacy refers to individuals’ beliefs in their capabilities to learn or perform a task successfully (Bandura, 1997). Outcome expectancies refer to how a task fits into an individual’s future plan and it also motivates forethought goal setting and performance phase efforts to learn (Shell, Murphy, & Bruning, 1989). Another component is task interest or intrinsic motivation, which relates to not only people’s interest and inherent satisfaction in an activity, but choosing and pursuing it in the performance phase (Zimmerman & Schunk, 2008). Finally, a learning goal orientation enhances self-regulation because students seek to improve their academic competency compared to a performance goal orientation, where they may avoid challenging tasks.

In the performance phase, self-regulated learning processes are grouped as self-control and self-observation (Zimmerman, 2011). Self-control strategies are task strategies, self-instruction, imagery, time management, help-seeking, self-instruction, environmental structuring, self-consequence, and delay of gratification. High self-regulated learners can use task strategies and imagery to learn, whereas, poor self-regulated learners may have difficulty doing so. Students can use a number of these self-control processes to motivate themselves. According to Wolters and Rosenthal (2000), self-consequence involve setting rewarding or non-rewarding consequences for oneself, environmental structuring refers to making the environment more suitable and attractive for task completion, and self-instructions refer to statements that enhance students’ learning goal orientation. In addition, delay of gratification refers to students’ intentions of postponing immediate rewards until they complete their work (Bembenutty & Karabenick, 2004). Students may also engage in help-seeking, which is a self-regulatory process of choosing teachers...
or peers to enhance learning a task (Zimmerman, 1998). The second performance phase processes is self-observation and it refers to metacognitive monitoring or self-recording. Tracking changes in one’s learning outcomes can motivate learners to expend more effort until they complete their task.

In the self-reflection phase, two processes are self-judgments and self-reactions. Self-judgments refer to self-evaluating one’s achievements and attributing causal inferences to the outcomes. Perceived responsibility refers to students’ causal attributions related to learning and successful outcomes (Kitsantas & Zimmerman, 2009). Two forms of self-reactions are self-satisfaction and defensive or adaptive inferences. Self-satisfaction with one’s work can enhance motivation to learn. Students who attribute poor outcomes to learning strategy are more likely to make adaptive inferences and modify their approach in subsequent efforts to learn. However, students who are dissatisfied with their performance and attribute it to uncontrollable causes often make defensive inferences such as task avoidance, procrastination, and lack of motivation to continue. Zimmerman (2011) describes the cyclical relationship between motivational and metacognitive components of self-regulation by noting that students’ use of cognitive and metacognitive strategies enhance perceptions of self-efficacy, which provide the motivational basis for further self-regulation during learning. Self-reflection phase reactions influence forethought goal setting and motivational beliefs to learn. As students self-regulate their learning, they become independent learners and take responsibility for their learning (Schunk, 2001). Among the many constructs of self-regulated learning, the following study explores South Asian Indian American students’ self-efficacy, intrinsic interest, help-seeking, delay of gratification, perceived responsibility, music practice, and self-regulation during music practice. Additional variables that were included are anxiety and teacher assessment of students’ music practice. A more detailed account of music research on the subprocesses in each phase can be found in McPherson and Renwick’s (2011) article.

**Literature Reviews**

According to McPherson and Zimmerman (2002), the core of self-regulated musical learning involves social processes, such as modeling or direct reinforcement from competent others that allow children over time to monitor and control their personal learning. Results from several studies suggest that self-regulation processes take time to develop and may be used more often by high achieving or advanced music students compared to novices (Hallam, 2001; Miksza, 2005). In a longitudinal study, McPherson (1997) found that students used a wider range of practice strategies in their third year compared to their first and high-achievers used metacognitive strategies compared to low achievers. In another longitudinal study with seven children between 7 and 9 years of age, McPherson and Renwick (2001) found differences in their self-regulatory processes. Some children practiced for long hours, corrected their errors, and made efforts to improve from the inception of the study. McPherson and Renwick (2001) noted that self-regulatory
processes such as self-monitoring, setting goals, structuring the learning environment, seeking information from knowledgeable people, and using appropriate strategies take time to develop, but every time young musicians initiate these processes during music practice, they are one step closer to refining these processes that would become second nature.

In a study with 16 adolescent students, Leon-Guerrero (2008) explored the type of self-regulated strategies they used during music practice. The results showed that students a number of self-regulated strategies during practice and repeating a segment of the musical selection was used more frequently compared to strategies involving how to play the musical notes. Nielsen (2001) conducted a case study with two third-year advanced organ students using Zimmerman’s (2000) model of self-regulation. The results data indicated that these students set specific goals, initiated strategic planning, used self-instruction, task strategies, and monitored their performance in a very detailed manner, implying that they were very skillful in employing self-regulatory behaviors to optimize their learning and performance.

Research evidence suggests that self-regulatory strategies predict music achievement. In two studies by McCormick and McPherson (2003) with 332 instrumentalists between ages 9-18, and McPherson and McCormick (2006) with 686 students between ages 9-19, the results showed significant relationships between self-report measures of cognitive strategy use, self-regulation, self-efficacy, and graded exams on music performance. In both studies, self-efficacy was the best predictor of music performance and practice time was indirectly related to performance, implying that while practice is important in successful performance, motivational variables are also important.

In another study, Nielsen (2004) examined the role of strategies and self-efficacy beliefs of 130 first-year advanced music students ranging from 18 to 43 years. Students participated in instrumental and vocal music practice. The results showed that students applied a range of cognitive, metacognitive, and management strategies during music practice such as, setting aside time to practice music, organizing the study environment, and setting goals. Students who perceived themselves capable of learning or performing a music task were more cognitively and metacognitively engaged compared to those who doubted their capability.

Although anxiety is not a subprocess in Zimmerman and Campillo’s model, it was a meaningful variable to include in this study. Researchers have also found that students with high self-efficacy engage in more challenging tasks, persist more, and express lower levels of anxiety compared to those with low self-efficacy (Bandura, 1986; Zimmerman, 2000). Studies on professional and classical musicians indicate that performance anxiety is one of the most frequently reported problem (Williamson & Thompson, 2006), it influences the quality of a musician’s performance (Dews & Williams, 1989; Wesner, Noyes, & Davis, 1990), and it is related to the fear of humiliation, tension, unrealistic expectations, and pessimistic self-talk (Wilson & Roland, 2002).
In addition, a number of studies indicate that females are sensitive to music performance anxiety across all age groups (Kenny & Osborne, 2006; Wesner et al., 1990). Anxiety refers to the experience of worrisome apprehensions during music performance, which could impair the music performance (Salmon, 1990). Researchers have assessed anxiety using somatic (e.g., “before I perform, I get butterflies in my stomach”), cognitive (e.g., I often worry about my ability to perform”), and behavioral (e.g., “I would rather play alone than in front of other people”) characteristics of anxiety (Kenny & Osborne, 2006).

An intervention to reduce music performance anxiety and enhance music performance by Hoffman and Hanrahan (2012) revealed that the treatment group experienced a significant reduction in self-reported anxiety immediately after the study, one month later, and a significant improvement in music performance compared to the control group. McPherson and Thompson (1998) observed that it is important for music educators and judges to consider the music performer’s thought processes, which are cognitive mediational processes that affect a performer’s perception of the task immediately before and during performance, for example, the level of anxiety and self-efficacy beliefs.

Intrinsic interest or motivation is another important component of Zimmerman and Campillo’s (2003) model. Research studies have documented that intrinsically motivated students have higher academic achievement (Areepattamannil & Freeman, 2008), less academic anxiety (Gottfried, 1990), greater persistence (Vansteenkiste, Lens, & Deci, 2006), and spend more time practicing and performing music (Driscoll, 2009; McPherson & McCormick, 2000; Schmidt, 2005). Secondary instrumental students and undergraduate education majors are more likely to endorse intrinsic motivation over extrinsic motivation (Schmidt, 2005; Schmidt, Zdzinski, & Ballard, 2006).

In a study involving 24 high achieving school children from Hong Kong, Leung and McPherson (2011) found that most of the students started learning music and were interested in it before entering primary school. When facing challenges, they were optimistic about overcoming them. They had positive environmental support from parents, teachers, and peers. Students reported that they valued music more than other school subjects and had positive expectations about their future music career, implying that they had strong intrinsic motivation.

In another study, Diaz (2010) surveyed 169 undergraduate and graduate students who played in band and orchestra ensembles at three universities. He found that these musicians considered intrinsic factors to be more motivating for success in musical activities compared to extrinsic factors. Likewise with 456 students from grades 6-12, Schmidt (2007) found significant correlations among self-efficacy and commitment to band, and intrinsic-mastery motivation. Intrinsic mastery-orientation was seen as an important factor in the motivation of instrumental music students.

Miksza (2005) examined the dimensions of self-regulation and motivation in the music practice of 175 junior high school band students. Students completed a questionnaire designed to measure intrinsic motivation, attributions of success and
failure, self-regulation, metacognition, and concentration regarding music practice and self-beliefs. Factor analysis showed that five factors accounted for 48% of the total variance, namely, concentration, intrinsic goal-motivation, intrinsic-challenge motivation, metacognition, and commitment to improve.

Most of the studies in music on motivation and self-beliefs have been conducted with students in western countries. Studies on self-efficacy and motivation with South Asian Indian students have been conducted in other domains. In a study with 355 Indian Canadian students in Canada, and 363 Indian students from India, Areepattamannil, Freeman, and Klinger (2011) examined the relation between students’ intrinsic, extrinsic motivation, and academic achievement. They found that Canadian Indian students had higher intrinsic motivation and academic achievement compared to their counterparts in India who had higher extrinsic motivation. Klassen (2004) examined the self-efficacy beliefs of 270 seventh grade South Asian Indian and Anglo Canadian students. He found that self-efficacy predicted math performance for both groups; however, the source of the students’ self-efficacy beliefs was different. A recent study by Ghazali and McPherson (2009) examined Malaysian children’s attitudes towards learning music. Among the five ethnic groups in the study, they found that Chinese and Indian students were more motivated to study music than the other groups and girls were generally more motivated than boys. Moreover, Chinese and Indian students were more inclined to delay gratification, that is, forego other leisure activities to enhance their musical learning.

Another self-regulatory construct related to academic achievement is perceived responsibility, which refers to students’ attributions regarding their learning processes and outcomes (Kitsantas & Zimmerman, 2009). Research on the development of perceived responsibility is relatively new and we are not aware of any studies on this variable in music. However, its importance is implied in the music literature. For instance, Nielsen (2004) invites instrumental teachers in higher music education to bear responsibility on increasing their students’ competence and confidence while they are learning.

Faulkner, Davidson, and McPherson (2010) report several decision trees that emerged from mining for knowledge in datasets constructed from the musical journeys, experiences and abilities of 157 young people in Australia for 12 years beginning from the outset of instrumental tuition in primary school. They discussed the findings in relation to self-regulation and motivation theories. One of their conclusions was that self-motivation and regulation should not be confused with regular practice times. Students’ negotiation of practice without a daily practice time-slot implies that they are capable of taking responsibility for learning music in self-regulated but flexible ways, and not by obligation or external enticements, which may negatively influence their practice and learning.

Jørgensen (2000) raised the question about who is responsible for the learning outcomes for a student in higher instrumental education. He states that students are responsible for their music practice, but instructors are also responsible for students’ learning. According to Jørgensen (2000) learning does not
take place in lessons only, but advanced music students learn a lot in individual practice sessions.

Help-seeking is a subprocess in the performance phase and research shows that help-seeking is an important self-regulated learning strategy that can improve learning and performance (Karabenick, 2011; Karabenick & Newman, 2010). Zimmerman (1998) notes that help-seeking is an important self-regulatory strategy used by professional musicians. He observed that Janina Fialkowska, a professional piano player, preferred Arthur Rubinstein as a coach because she could seek help whenever necessary to master a musical piece. Rubinstein would model to her how the piece could be played.

According to Zimmerman (2008), struggling learners are often reluctant to seek help because it may expose their limitations, whereas, students with positive motivational beliefs seek help because they are confident it will enhance their learning. In addition, students with higher self-efficacy and less test anxiety are more likely to seek help when necessary (Karabenick, 2011). Nielsen (2004) examined the association between help seeking and use of learning strategies among first-year music students in church music, and performance or music education programs at six Norwegian institutions of higher music education. She found that help seeking was positively related to use of cognitive strategies (e.g., elaboration and organization), self-regulatory strategies (e.g., time management), and self-efficacy for learning music. Zimmerman (2001) and Wigfield, Klauda, and Cambria (2011) have placed learners’ ability to delay gratification in the performance phase of the self-regulation cyclical model. To study this construct in academic settings, researchers (Bembenutty, 2009; Bembenutty & Karabenick, 2004) have coined the term, academic delay of gratification (ADOG), which refers to delaying immediate rewards in favor of pursuing academic goals that are temporally remote, but ultimately more valuable. Research with college students shows that ADOG is positively related to self-efficacy, intrinsic motivation, help-seeking, time management, and academic achievement (Bembenutty, 2009).

Recent studies (Zhang & Maruno, 2010; Zhang, Karabenick, Maruno, & Lauermann, 2011) examined the relation of academic delay of gratification, motivation, and self-regulated learning among Chinese elementary grade students. The results revealed a positive correlation between academic delay of gratification, motivation, and self-regulated learning.

Strickland (2010) observed that “the instrumental music classroom experience is one where the delay of gratification is commonplace” (p. 7). She posited that students’ learning of music over extended periods of time required extensive preparation, personal discipline, and patience that may be closely related to delay of gratification. Initially, when students commence learning a musical instrument, they have to delay gratification for significant events and spend their time learning basic habits and skills of performance, for example instrument assembly, posture, music reading, fingerings, and hand placement (Strickland, 2010). However, delay of gratification has not been fully integrated in research examining mastery of musical skills.
The primary purpose of the present study was to examine self-reported data on the relationships among self-regulation, intrinsic motivation, delay of gratification, self-efficacy, music anxiety, help seeking, and music instructors’ rating of the students’ preparation and students’ music practice. The second purpose was to determine whether students’ motivational beliefs, practice of music, and teacher’s rating of their practice are mediated by self-regulation, delay of gratification, perceived responsibility, help-seeking, and music anxiety. From a social cognitive perspective (Schunk & Zimmerman, 1994; 1998), it is expected that self-regulated learning strategies would mediate the association between delay of gratification, self-efficacy level, intrinsic motivation, music practice, and instructor’s evaluations. The third goal was to decipher what characteristics of music students are useful for predicting their perception of themselves or the teacher as more responsible for motivation, and self-regulated behaviors during music practice. Finally, we conducted analyses to see if there are developmental differences in how students report their use of self-regulatory behaviors.

The current study contributes to the literature on music and self-regulated learning in three ways: (1) The sample of South Asian American students would provide a cultural dimension on music practice and report of self-regulatory behaviors; (2) extending the range of self-regulatory behaviors by adding scales such as perceived responsibility, and academic of gratification; and (3) exploring whether age difference exists between younger and older students’ report of self-regulatory behaviors during music practice.

Method

Participants

The participants were 76 females (49.7%) and 77 males (50.3%) (n = 153) who take music lessons in the evening hours at a private music school in a suburban town in New York City, United States of America. During the day, they attend regular schools in their neighborhood. Approximately 350 students attend this school and classes are held on Monday to Friday from 4 p.m. to 9 p.m. and on Saturdays from 9 a.m. to 5 p.m. The age of the students ranged from 10 to 18 years (M = 13.42; SD = 2.43). In the elementary grades 5 and 6, there were 25 students respectively (n = 50), in the middle school grades 7 and 8, there were 23 and 19 (n = 42), and the high school grades from 9 to 12 had 11, 14, and 19 students respectively (n = 61). These students were born in America to Indian parents with an ancestral heritage from India and English is their first language. Their religious identity is Hindu and racial ethnicity is Indian American. Students are placed in four levels at this school, namely, elementary, basic, intermediate, and advanced. Students are placed at the elementary level when they join the music academy and remain at this level for one year wherein they must be able to play at least 10 songs on the music instrument of choice they aim to master. At the end of the year, there is an examination at each level and successful students receive a passing certificate.
and progress to the next level. Students are given homework every week and are expected to practice their musical piece or song at home. Before each class, the instructors evaluate each student’s homework to determine whether students have mastered the prior homework or are having difficulty. In this study, based on the discussion with the Institutional Review Board, we excluded participants below fifth grade because completing the survey demanded reading skills at fourth grade level and above. As a result, students at the elementary music level were not included in this study. There were 61 (39.9%) at the basic level, 68 (44.4%) at the intermediate level, and 24 (15.7%) at the advanced level.

The musical instruments ranged from percussion (e. g., tabla), string (e.g., sitar, violin, sarangi), wind (e. g., flute), and keyboard (e. g., harmonium). There were 109 students who played harmonium, 57 played tabla, 17 played sitar, 10 played violin, three played sarangi, and two played flute. Most students played one instrument (n = 115), some played two instruments (n = 31), and a few played three instruments (n = 7).

There are five teachers in the school, two females and three males and each has more than five years of teaching experience in Indian classical music. The class size ranges from groups of five to 10 students. The instructional approach is based on modeling, practice, and feedback. Participation was voluntary. This study was approved by the Institutional Review Board. The researcher contacted the school’s principal and teachers and told them of the study. Flyers were posted in the school and parental permission and student consent forms were signed by participating students before the study.

Measures

Help-seeking. To assess formal help seeking, a six-item scale was adapted from Karabenick and Knapp (1991) (M = 2.36; SD = .96). We assessed the frequency with which students seek help from their parents, siblings, peers, or teachers using a scale 1 (never) to 7 (always). An example is, “How often do you seek help from your music instructor to complete your music homework?” The Cronbach’s alpha reliability coefficient was .61.

Academic delay of gratification. A ten-item scale was adapted for this study from Bembenutty (2010). The scale examined students’ delay of gratification in relation to their music homework. They rated their preference for an immediate attractive option versus a delayed alternative, which was scored with a continuous scale ranging from 1 (Definitely choose A) to 4 (Definitely choose B). For example, “Which of the following would you choose to do? A. Spending time with your friends and then practice your music homework, or B. Postpone spending time with your friends until after you have practice your music homework” (M = 2.97; SD = .65). The alpha reliability coefficient for this scale was .81.
Teacher assessment of music performance. A two-item scale was used to measure teacher’s rating of the students’ performance in music class and homework preparation by using a scale from 1 (extremely poor) to 10 (extremely well). The first item was, “Please indicate how the above student performs in classroom.” The second item was, “Please indicate how often this student comes to class with his/her homework assignment or homework practice done.” This scale ranged from 1 (extremely unprepared) to 10 (extremely prepared). The Cronbach’s alpha was .85.

Self-efficacy beliefs for learning music. A four-item scale was adapted for this study to assess self-efficacy beliefs for doing music homework (Bembenutty, 2010). For example, “I am sure that I can complete my music homework.” This scale ranged from 1 (strongly disagree) to 7 (strongly agree), $M = 6.28; SD = .81$. The reliability coefficient was .77.

Intrinsic motivation for learning music. Intrinsic motivation was assessed with a five-item scale adapted from Bembenutty (2010). An example is, “I enjoy doing challenging music homework assignment.” This scale ranged from 1 (strongly disagree) to 7 (strongly agree), $M = 4.84; SD = 1.31$. The alpha reliability coefficient for this scale was .82.

Self-regulation of learning music. This ten-item scale was adapted from Bembenutty (2010). For example, “I have a quiet place to complete my music homework.” This scale ranged from 1 (strongly disagree) to 7 (strongly agree), $M = 5.11; SD = 1.22$. The reliability coefficient was .81.

Time spent practicing music. The amount of time students spent practicing music was obtained by 1-item scale. "How many hours per day do you usually spend practicing music?" ($M = 1.02; SD = 1.00$). The 1-item format in relation to homework follows Cooper and associates (Cooper, Jackson, Nye, & Lindsay, 2001; Cooper, Valentine, Nye, & Lindsay, 1999).

Frequency of music practice. The frequency of doing music homework was assessed by students’ responses to the following question: “How often do you do music homework?” (Cooper et al., 2001; Cooper et al., 1999), ($M = 5.55; SD = 6.00$).

Music anxiety. It was assessed with a three-item scale ($M = 2.92; SD = 1.41$). It was adapted from Kenny and Osborne (2006) and measured cognitive (e.g., “How often do you worry when you practice music?”) and behavioral (e.g., “How often do you worry when you practice music in front of your peers?”) characteristics of anxiety. The scale ranged from 1 (never) to 7 (always). The alpha reliability coefficient for this scale was .72.

Perceived responsibility for learning music. It was assessed with an 18-item scale adapted from Kitsantas and Zimmerman (2009). Students rated the extent to
which they believe that learning music and practicing is their responsibility or the instructor's responsibility. Based on Kitsantas and Zimmerman's work, Magno (2011) constructed a perceived responsibility scale with consistent findings. An example is, “who is more responsible for not finishing music homework assignments?” Students answered using the following seven-point scale: 1 (mainly the teacher), 2 (definitely more the teacher), 3 (slightly more the teacher), 4 (both equally), 5 (slightly more the student), 6 (definitely more the student), and 7 (mainly the student). The Cronbach's alpha was .84.

Procedure

The first author administered the questionnaires to students in groups of five or six in a room at the music school. At the beginning, the research read the following sentences from students’ assent form. “This study aims to find out how you practice music. For example, do you set goals, motivate yourself, and manage your time while practicing music.” Students were provided with a pencil, assent form, and the four-page stapled questionnaire. Students read their assent forms briefly and signed them. This was done outside of students’ class time with the teachers’ and parents’ permission. Students were informed that their participation was voluntary and can withdraw from the study at any time. All the students who consented participated fully in the study. The reading level for the survey items was at 6.8 grade level based on a calculation in Microsoft word. All students were told to ask for help if they had difficulty in completing the survey. Moreover, to facilitate younger students’ comprehension, the first author told them to ask for help if they did not understand the meaning of any word or sentences on the survey. Some of the younger students who had difficulty with a few words received help. The survey items were stapled on four sheets of single-sided papers. The first part of the survey collected demographic data such as age, grade level, music level, and gender. Before each scale, there were clear instructions on how to respond to each item. The same questionnaire was administered to students from grade 5 to grade 12. Students also indicated their teachers’ names. At the end of the student session, the researcher gave the respective teacher the survey items to complete for each student. Each student was given a code to guarantee anonymity. Students completed the survey in approximately 15 to 20 minutes. At the end of each session, the researcher checked through to make sure students completed all the items and thanked each student for participation.

Results

Pearson correlation coefficients were calculated to assess the direction and magnitude of the linear relationship between students' motivation, use of learning strategies, gender, and instructor rating of their music performance. ANOVA, MANOVA, Regression analysis, cluster analysis, and logistic regression were conducted to examine the association between the variables. Factor analyses were
conducted to identify latent variables from the correlations between observed variables (see Table 1). Path analyses were conducted to examine the goodness of fit of the predicted model about the hypothesized relations between the observed variables in the study.

We used multilevel regression modeling to assess whether the instructor’s rating of students’ homework preparation and performance varied across students’ level of music skills (i.e., basic, intermediate, and advanced). As suggested by the intraclass correlation [ICC = .241/(.241+1.900) = .112], and because the intercept did not vary significantly across music skill levels (Wald Z - .81, p = .418), the development of a multilevel model is not warranted. However, there was significance variance to be explained within music students (Wald Z = 8.65, p = .000). As a result, we examined music students’ differences with regard to their music level of preparation. Students reported their level as basic, intermediate, and advanced. A MANOVA with music level as a independent factor and the other variables as dependent variables indicated no significant main effect, Wilks’ Lambda, $\Lambda = .84$, $F= 1.26$, $p>.05$; $\eta^2_p = .08$.

Another MANOVA was conducted to assess gender effect on the other variables. Wilks’ Lambda statistic revealed a significant main effect of gender, $\Lambda = .88$, $F= 2.07$, $p<.05$; $\eta^2_p = .11$. ANOVA analysis on the dependent variables indicated a significant gender difference on music anxiety. Females ($M = 3.18$, $SD = 1.49$) reported higher music anxiety level than males students ($M = 2.64$, $SD = 1.28$), but with a small effect size, $\eta^2_p = .03$.

To examine the effect of academic level (elementary, middle, and high school) of the students on other variables, MANOVA with academic level as an independent factor and the other variables as dependent variables, showed no significant main effect Wilks’ Lambda, $\Lambda = .81$, $F= 1.55$, $p>.05$; $\eta^2_p = .10$. 
Table 1
Rotated Factors Loadings of Perceived Responsibility for Music Homework Practice

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>Factor loadings 1</th>
<th>Factor loadings 2</th>
<th>Factor loadings 3</th>
<th>h²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is more responsible for me…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. not finishing music homework assignments?</td>
<td>6.58</td>
<td>.98</td>
<td>.83</td>
<td>.14</td>
<td>.00</td>
<td>.71</td>
</tr>
<tr>
<td>2. fooling around during music homework practice?</td>
<td>6.58</td>
<td>1.09</td>
<td>.80</td>
<td>-.05</td>
<td>.11</td>
<td>.65</td>
</tr>
<tr>
<td>3. doing music homework assignments without trying hard?</td>
<td>6.27</td>
<td>1.32</td>
<td>.78</td>
<td>.30</td>
<td>.14</td>
<td>.71</td>
</tr>
<tr>
<td>4. not writing music homework assignments?</td>
<td>6.42</td>
<td>1.30</td>
<td>.75</td>
<td>-.09</td>
<td>.23</td>
<td>.63</td>
</tr>
<tr>
<td>5. being unprepared to participate in class?</td>
<td>6.44</td>
<td>1.16</td>
<td>.72</td>
<td>.34</td>
<td>.06</td>
<td>.64</td>
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<tr>
<td>6. being unprepared for music homework?</td>
<td>6.50</td>
<td>1.14</td>
<td>.68</td>
<td>.04</td>
<td>.10</td>
<td>.47</td>
</tr>
<tr>
<td>7. not valuing music homework assignment?</td>
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<td>8. not concentrating during music homework assignment?</td>
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Factor 1: Perceived Responsibility for Behavior

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<th>Factor loadings 3</th>
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<tr>
<td>Factor 2: Perceived Responsibility for Motivation</td>
<td></td>
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<tr>
<td>9. remembering information from the music homework?</td>
<td>5.92</td>
<td>1.48</td>
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<td>.58</td>
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<tr>
<td>10. being interested in doing music homework assignments?</td>
<td>5.42</td>
<td>1.66</td>
<td>.63</td>
<td>.36</td>
<td>.53</td>
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<tr>
<td>11. making extra effort to complete music assignment?</td>
<td>6.41</td>
<td>1.10</td>
<td>.59</td>
<td>.01</td>
<td>.43</td>
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<td>12. being motivated to practice music at home?</td>
<td>5.08</td>
<td>1.64</td>
<td>.54</td>
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<td>.36</td>
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<td>13. rehearsing music homework assignment?</td>
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Factor 3: Perceived Responsibility for Cognition

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<th>Factor loadings 2</th>
<th>Factor loadings 3</th>
<th>h²</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. not understanding music homework instructions?</td>
<td>4.34</td>
<td>1.66</td>
<td>.13</td>
<td>-.03</td>
<td>.72</td>
<td>.54</td>
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<tr>
<td>15. not practicing music homework assignments correctly?</td>
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<td>1.57</td>
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<td>.10</td>
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<td>.61</td>
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<td>16. understanding assigned music homework?</td>
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<td>1.66</td>
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<td>.56</td>
<td>.50</td>
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<td>17. receiving poor feedback for my assignment?</td>
<td>5.16</td>
<td>1.89</td>
<td>.27</td>
<td>.13</td>
<td>.52</td>
<td>.35</td>
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<td>18. believing music homework is important to my future?</td>
<td>5.64</td>
<td>1.46</td>
<td>.18</td>
<td>.47</td>
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Eigenvalue
% of Variance
Cumulative %

Factor Correlations

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<th>.71</th>
<th>.41**</th>
<th>.40**</th>
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<td>Factor 1</td>
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<td></td>
<td></td>
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<tr>
<td>Factor 2</td>
<td>5.73</td>
<td>.98</td>
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<tr>
<td>Factor 3</td>
<td>5.00</td>
<td>1.00</td>
<td>.41**</td>
<td>.42**</td>
</tr>
</tbody>
</table>

Note. h² = communality. Boldface indicates highest factor loadings. Students answered using the following seven-point scale: 1 (mainly the teacher), 2 (definitely more the teacher), 3 (slightly more the teacher), 4 (both equally), 5 (slightly more the student), 6 (definitely more the student), and 7 (mainly the student).

Research Objective 1: Correlations between the Variables

Table 2 presents means, standard deviations, Cronbach alphas, and Pearson correlation coefficients among the variables of the study. Frequency of doing music assignments was related to hours practicing music ($r = .22, p < .01$), delay of gratification ($r = .34, p < .01$), self-efficacy ($r = .21, p < .01$), intrinsic motivation ($r = .37, p < .01$), and self-regulation ($r = .38, p < .01$). Hours practicing music was related to frequency of practicing music, help seeking ($r = .26, p < .01$), delay of gratification ($r = .27, p < .01$), intrinsic motivation ($r = .41, p < .01$), and self-regulation ($r = .30, p < .01$). These results suggest that students who reported high frequency of music practice used self-regulated learning strategies, were highly willing to delay
gratification, highly self-efficacious, and had high intrinsic interest for practicing music.

Self-regulation was related to music practice, help seeking ($r = .21, p < .01$), delay of gratification ($r = .35, p < .01$), self-efficacy ($r = .40, p < .01$), and intrinsic motivation ($r = .57, p < .01$). These findings are consistent with previous studies among non-music middle school children (Pintrich & DeGroot, 1990) and non-music college students (Bembenutty, 2009). Self-efficacy was related to delay of gratification, music homework, intrinsic motivation ($r = .47, p < .01$) and self-regulation ($r = .40, p < .01$).

Consistent with previous work on non-music students (Pintrich & DeGroot, 1990), music anxiety was inversely related to self-efficacy beliefs ($r = -.17, p < .05$) and self-regulation ($r = -.22, p < .01$). However, music anxiety was positively related to help seeking ($r = .24, p < .01$) and females reported higher music anxiety than males ($r = .19, p < .05$). More anxious students reported a low level of self-efficacy to master the material for their music practice and were less capable to motivate themselves. One reason may be that females sought less help from knowledgeable parents, siblings, tutors or music instructors than males. Unexpectedly, the instructors’ assessments of students’ music practice was unrelated to the other variables in the study. Similarly, students’ perceived responsibility only correlated with intrinsic motivation ($r = .16, p < .05$).

Table 2
Means, Standard deviations, Cronbach Alphas, and Intercorrelations for Variables

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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>8</th>
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<td>2. Teacher Assessment</td>
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<td>3. Practicing music</td>
<td>.03</td>
<td>.04</td>
<td>1</td>
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<td>4. Music Homework</td>
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<td>.02</td>
<td>.22**</td>
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<td>5. Help seeking</td>
<td>.10</td>
<td>-.02</td>
<td>.26**</td>
<td>.10</td>
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<tr>
<td>6. Music anxiety</td>
<td>.19*</td>
<td>-.15</td>
<td>.05</td>
<td>-.10</td>
<td>.24**</td>
<td>1</td>
<td></td>
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<tr>
<td>7. Delay of gratification</td>
<td>.11</td>
<td>.00</td>
<td>.27**</td>
<td>.34**</td>
<td>.01</td>
<td>-.13</td>
<td>1</td>
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<td>8. Perceived responsibility</td>
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<td>-.03</td>
<td>-.00</td>
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<td>-.08</td>
<td>-.08</td>
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<td>.09</td>
<td>.05</td>
<td>.21**</td>
<td>-.03</td>
<td>-.17*</td>
<td>.27**</td>
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<td>10. Intrinsic motivation</td>
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<td>.00</td>
<td>.41**</td>
<td>.37**</td>
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<td>-.14</td>
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<td>.47**</td>
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<td>11. Self-regulation</td>
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<td>.11</td>
<td>.30**</td>
<td>.38**</td>
<td>.21**</td>
<td>-.22**</td>
<td>.35**</td>
<td>.16</td>
<td>.40**</td>
<td>.57**</td>
<td>1</td>
</tr>
</tbody>
</table>

Mean: 7.48, 1.02, 5.50, 2.36, 2.92, 2.97, 5.84, 6.28, 4.84, 5.11

Standard Deviation: .42, .58, 1.33, .96, 1.41, .66, .74, .81, 1.31, 1.22

Cronbach Alpha: .85, ----, ----, .61, .72, .81, .84, .77, .82, .81

Note. * $p < .05$, ** $p < .01$
Research Objective 2: Path Analysis

The proposed model was evaluated using LISREL-8.80 (Jöreskog & Sörbom, 2004). The following fit indexes were used: Chi-square/df, Non-Normed Fit Index (NNFI), Root Mean Square Error of Approximation (RMSEA), Incremental Fit Index (IFI), Goodness of Fit Index (GFI), and Comparative Fit Index (CFI). A good fit was indicated by a Chi-square/df equal or less than 25, NNFI, IFI, GFI, and CGI greater than .90, and a low RMSEA (Bentler & Bonett, 1980; Byrne, 1998; Steiger, 1990).

Estimation of the proposed path model (See Figure 1) revealed a significant χ² (18, N = 153) = 30.37, p = .034, NNFI = .58, IFI = .79, GFI = .88, RMSEA = .06, and CFI = .78. The indices showed that the predicted model did not provide an optimal goodness of fit (see Table 3). Eleven of the paths were non-significant. Following the modification recommendations and theoretical background, Figure 2 shows the results of the final path model. The final model fits the data well with a significant χ² value, χ² (10, N = 153) = 7.61, p = .667, RMSEA = 0.000; NNFI = .96, IFI = 1.01, GFI = .99, and CFI = 1.01. Given the substantial theoretical evidence of the association between motivational beliefs, self-regulation, and music performance (McPherson & Renwick, 2011; Nielsen, 2001; Zimmerman, 1998), and the estimated standardized path-coefficient, the model was retained as the final model.

Table 3

<table>
<thead>
<tr>
<th>Model</th>
<th>Goodness of Fit Indexes</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>χ² (df)</td>
<td>p</td>
<td>NNFI</td>
<td>IFI</td>
<td>GFI</td>
<td>RMSEA</td>
</tr>
<tr>
<td>Predicted Model</td>
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<td>.03</td>
<td>.58</td>
<td>.79</td>
<td>.88</td>
<td>.06</td>
</tr>
<tr>
<td>Final Model</td>
<td>7.61 (10)</td>
<td>.66</td>
<td>.96</td>
<td>1.01</td>
<td>.99</td>
<td>.00</td>
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</tbody>
</table>

Note. NNFI, Non-Normed Fit Index; IFI, Incremental Fit Index; GFI, Goodness of Fit Index; CFI, Comparative Fit Index; RMSEA, Root Mean Square Error of Approximation.

Figure 2 presents the paths (standardized coefficients with correlations in parentheses) resulting from the LISREL analysis. As expected, students’ self-efficacy beliefs had a direct effect on delay of gratification (β = .21) and self-regulation for learning music (β = .40). Willingness to delay gratification had a direct effect on hours of music practice (β = .21). Self-regulation had a direct and negative effect on music anxiety (β = -.22), a direct and positive effect on help seeking (β = .28), delay of gratification (β = .18), frequency of doing music assignments(β = .32), and hours of music practice (β = .22). Music anxiety had a positive and direct effect on help seeking (β = .30), which in turn had a positive effect on hours of music practice (β = .22).

The final model differed from the proposed model by the absence of intrinsic motivation, perceived responsibility, and instructors’ evaluations of the students’ music preparation and practice. Table 4 describes the decomposition effects from
the path analysis. Figure 2 shows that self-regulation and self-efficacy accounted for 10% of the variance in delay of gratification and 17% of the variance in music anxiety. Self-efficacy, self-regulation, and music anxiety accounted for 11% of the variance in help seeking. All these variables accounted for 18% of the variance in hours of music practice while self-efficacy and delay of gratification accounted for 21% of the variance in frequency of practicing music.

Table 4

<table>
<thead>
<tr>
<th>Effect</th>
<th>Standardized estimate (β)</th>
<th>Standard error (SE)</th>
<th>t</th>
<th>R²</th>
</tr>
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<tbody>
<tr>
<td>On Hours Practicing Music</td>
<td></td>
<td></td>
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<tr>
<td>of delay of gratification</td>
<td>.21</td>
<td>.08</td>
<td>2.77</td>
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<td>of self-regulation</td>
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<td>.08</td>
<td>2.68</td>
<td></td>
</tr>
<tr>
<td>of help seeking</td>
<td>.22</td>
<td>.08</td>
<td>2.95</td>
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<tr>
<td>On Music Homework</td>
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<td>of delay of gratification</td>
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<td>.of self-regulation</td>
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<tr>
<td>On Help Seeking</td>
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<td>.of self-regulation</td>
<td>.28</td>
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<td>of music anxiety</td>
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<td>.of self-efficacy</td>
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<td>2.49</td>
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</table>

Note. All the effects are statistically significant at the p < .05.

Table 5 displays the decomposition of direct, indirect, and total effects on the endogenous variables. Self-efficacy had a significant direct or indirect effect on all the variables. Self-regulation has a significant and indirect effect on hours of music practice (Indirect effect = .08, p < .05), but not on frequency of practicing music (Indirect effect = .05, p > .05). Music anxiety had a significant indirect effect on hours of music practice (Indirect effect = .07, p < .05). The only non-significant indirect effect was between self-regulation and frequency of doing music homework, t = 1.79, p > .05.
Table 5
Direct, Indirect, and Total Effects on the Endogenous Variables

<table>
<thead>
<tr>
<th>Effect</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>of delay of gratification</td>
<td>.21</td>
<td>.00</td>
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<tr>
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<tr>
<td>…of music anxiety</td>
<td>.00</td>
<td>.07</td>
<td>.07</td>
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<tr>
<td>of self-efficacy</td>
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<td>.16</td>
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<td>On Music Homework</td>
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<td>of delay of gratification</td>
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<td>of self-regulation</td>
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<td>.05</td>
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<td>-.22</td>
</tr>
<tr>
<td>of self-efficacy</td>
<td>.00</td>
<td>-.09</td>
<td>-.09</td>
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<tr>
<td>On Self-regulation</td>
<td></td>
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<tr>
<td>….of self-efficacy</td>
<td>.40</td>
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<tr>
<td>On Delay of Gratification</td>
<td></td>
<td></td>
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<tr>
<td>….of self-regulation</td>
<td>.18</td>
<td>.00</td>
<td>.18</td>
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<tr>
<td>….of self-efficacy</td>
<td>.21</td>
<td>.07</td>
<td>.28</td>
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Objective 3: Predicting Perceived Responsibility

In light of the surprising finding that perceived responsibility had a significant, but weak association with intrinsic motivation ($r = .16, p < .05$), further examination on the function of perceived responsibility was conducted. Cluster analysis was used to classify students based on their reported degree of responsibility attributed to them or to the teacher regarding music learning, motivation, and music practice.

A cluster analysis was performed to determine the similarities, group membership, and structure in data of the music students in relation to their perceived responsibility. A K-mean generated a non-interpretable three-cluster solution with one cluster involving only two members. However, a two-cluster solution was highly interpretable. The cluster analysis produced an estimate of within-students similarity and dissimilarity according to their perceived responsibility. Cluster 1 (labeled teacher primarily responsible; $n = 42$) consisted of students who perceived that teachers were primarily responsible for their music behavior, motivation, and use of cognitive strategies. These three types of perceived responsibility are derived from prior research (Magno, 2011; Zimmerman & Kitsantas, 2005), and confirmed in our factor analysis (see Table 1). Cluster 2 (labeled student primarily responsible; $n = 111$) consisted of students who perceived that they were primarily responsible for their learning tasks and outcomes, which was confirmed with a MANOVA. Using Wilks’ Lambda statistic, there was a
significant effect of cluster on the students’ perceptions of responsibility, $A = .35$, $F = 91.30$, $p<.001$; $\eta_{p}^{2} = .64$ (see Table 6).

A MANOVA was followed by a series of ANOVAs, one per dependent variable (see Table 6) to test the differences between the two clusters regarding students' motivation, music anxiety, self-regulation, gender, and instructor's assessment. The MANOVA was not significant $A = .91$, $F = .12$, $p > .05$; $\eta_{p}^{2} = .08$. Subsequent ANOVAs suggested that academic delay of gratification for learning music was the only variable that was significantly associated with perceived responsibility $F(1, 151) = 5.25$, $p < .05$, $\eta_{p}^{2} = .03$.

Table 6
Mean Scores on Measures of Perceived Responsibility for Learning Music as a Function of Two Cluster Solutions

<table>
<thead>
<tr>
<th>Perceived Responsibility</th>
<th>Student Primarily Responsible</th>
<th>Music Teacher Primarily Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cluster 1 ($n = 42$)</td>
<td>Cluster 2 ($n = 111$)</td>
</tr>
<tr>
<td>Perceived Responsibility of Behavior for Learning Music</td>
<td>$M = 5.82$, $SD = .95$</td>
<td>$M = 6.71$, $SD = .37$</td>
</tr>
<tr>
<td>Perceived Responsibility of Music Motivation for Learning Music</td>
<td>$M = 4.67$, $SD = .94$</td>
<td>$M = 6.14$, $SD = .63$</td>
</tr>
<tr>
<td>Perceived Responsibility for Using Cognitive Strategies to Learn Music</td>
<td>$M = 3.96$, $SD = .70$</td>
<td>$M = 5.40$, $SD = .79$</td>
</tr>
</tbody>
</table>

$F = 69.91$, $\eta_{p}^{2} = .32$

$F = 122.53$, $\eta_{p}^{2} = .44$

$F = 105.83$, $\eta_{p}^{2} = .41$

Note. Wilks’ Lambda = .35, $F = 91.30$, $p<.001$, Partial Eta Squared = .64.

To examine further how delay of gratification differentiated these two groups of music students, a binary logistic regression was computed because we have a nominal dependent variable. The logistic regression had two clusters as the outcome variable (Cluster 1 coded 0, and cluster 2 coded 1) with delay of gratification and gender as the independent variables in two steps. Gender was included to control for its potential effect (see Table 7).

Delay of gratification significantly predicted cluster classification. A test of the full model with the two independent variables against a constant only model was statistically significant, $\chi^{2}(1, N = 153) = 12.99$, $p<.001$). However, adding gender without delay of gratification did not significantly predict cluster classification, $-2LL = 178.14$ ($179.98 - 178.14 = 1.84$; $\chi^{2}(1, N = 153) = 1.96$, $p > .05$), which suggested that delay of gratification was a sufficient predictor ($-2LL = 173.41$ ($178.14 - 173.41 = 4.73$; $\chi^{2}(1, N = 153) = 6.41$, $p < .05$). The reduction of the $-2LL$ suggests that by adding delay of gratification, perceived responsibility was predicted more accurately than by the constant and gender. The amount of variance explained by the two predictors as indicated by Pseudo R-square Hosmer and Lemeshow’s measure of $R_{L}^{2}$ was low (.11) with 95% confidence interval. Table 7
shows the regression coefficients, Wald statistics, odd ratios, and 95% confidence intervals for odds ratios for each of the predictors.

Table 7
Summary of Logistic Regression Analysis Predicting Differences on Perceived Responsibility

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Wald statistic</th>
<th>p</th>
<th>OR</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
<th>-2LL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 0</td>
<td>Constant</td>
<td>0.972</td>
<td>0.181</td>
<td>28.780</td>
<td>0.00</td>
<td>2.643</td>
<td>179.98</td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>Gender</td>
<td>0.512</td>
<td>0.367</td>
<td>1.941</td>
<td>0.164</td>
<td>1.669</td>
<td>0.812</td>
<td>3.428</td>
</tr>
<tr>
<td>Step 2</td>
<td>Gender</td>
<td>0.431</td>
<td>0.375</td>
<td>1.326</td>
<td>0.250</td>
<td>1.539</td>
<td>0.739</td>
<td>3.207</td>
</tr>
<tr>
<td>Delay of gratification</td>
<td>0.596</td>
<td>0.286</td>
<td>4.342</td>
<td>0.037</td>
<td>1.815</td>
<td>1.036</td>
<td>3.178</td>
<td></td>
</tr>
</tbody>
</table>

Note: Gender (males are code 0, females are coded 1). CI = confidence interval for odds ratio (OR). -2LL = Likelihood Ratio Tests

Classification of cluster membership was marginal, with 2.4% of the students who perceived that the music instructors were primarily responsible (41 students actually believing they were mainly responsible and 1 student correctly classified), and 98.2% of the students who perceived that they were mainly responsible (109 students actually believing they were mainly responsible and 2 students misclassified). With the initial model (Step 0) predicting that 100% of the students will perceive that they were mainly responsible rather than the teacher, in Step 2, we found that the overall success rate of predicting the students’ beliefs was actually 71.9% of the 153 music students. An examination of Wald statistics suggests that academic delay of gratification was the only significant predictor of cluster membership $\chi^2(1, N = 153) = 4.34, p < .05$. It distinguished music students who perceived that they are more responsible for learning music compared to those who perceive their instructors are more responsible.

Discussion

In this study, we investigated various self-regulatory processes in the context of music practice. The results highlight the significant role that self-efficacy plays in learning and practicing music assignments. Consistent with Bandura (1997), these findings support the contention that a sense of agency is associated with positive music outcomes and self-efficacy had a significant direct or indirect effect on all the variables in the study.

The first research objective of this study was to examine the relations among the variables. The results showed that self-regulation was significantly and positively related to hours of music practice, help-seeking, delay of gratification,
self-efficacy, and intrinsic motivation, implying that students who engaged in self-regulatory processes also exerted more effort in music and motivated themselves. The importance of self-regulation has been documented in music education (McPherson & Renwick, 2011). This study supports the view that learning a musical instrument involves a great deal of self-regulatory behaviors and processes (McPherson & Renwick, 2011).

A hallmark of self-regulated learners is that they are able to control their emotions. The results indicated an inverse relation between self-regulation and music anxiety, suggesting that students who engaged in more self-regulatory behaviors experienced less anxiety. However, females reported higher anxiety level compared to males. Research on music anxiety suggest that students do experience music performance anxiety as early as sixth grade (Ryan, 2004), and females tend to report more performance anxiety than males (LeBlanc, Jin, Obert, & Siivola, 1997).

Consistent with Strickland (2010), academic delay of gratification was related to hours of practicing music, frequency of music practice, self-efficacy, intrinsic motivation, and self-regulation. These findings support Strickland’s proposition that “the instrumental music classroom experience is one where the delay of gratification is commonplace” (p. 7). Music students reported that they prefer to postpone immediately available opportunities in order to pursue their music goals (Bembenutty & Karabenick, 2004), a finding that is consistent with Mischel and his associates’ (Casey et al., 2011; Mischel, 1996). Research evidence suggests that delay of gratification has certain developmental stability through the lifespan and positive behavioral outcomes. In a longitudinal study, children who delayed gratification for a candy at four years, were able to resist temptations, and were academically and socially more successful than children who were unsuccessful in resisting temptation forty years later (Casey et al., 2011). Moreover, the findings indicate that delay of gratification depends on individuals’ self-efficacy beliefs and self-regulatory processes.

The second research objective examined whether the associations between self-efficacy beliefs, intrinsic motivation, practice of music, frequency of doing music assignments, and teacher’s rating of the students’ music practice are mediated by students’ self-regulation, delay of gratification, perceived responsibility, help-seeking, and music anxiety. In general, the present study provided substantial support for direct and indirect effects between students’ self-efficacy beliefs, use of self-regulated strategies, willingness to delay gratification, help seeking for learning music, music anxiety, and frequency of music practice. These results suggest that students’ motivational beliefs and self-regulatory behaviors contributed significantly to successful music practice.

Students’ self-regulation of learning directly affected their willingness to delay gratification, help seeking, and completing music practice. The present results support the premise that self-regulation of learning impacts music practice (McPherson & Renwick, 2011). However, highly anxious music students reported using less self-regulated learning strategies than less anxious students. Students’
willingness to delay gratification had a direct effect on hours of music practice, suggesting that students were willing to sacrifice immediate gratification and spend quality hours practicing music. However, delay of gratification did not have an effect on help seeking, but help seeking had a direct effect on hours of music practice. It is possible that some students seek help when it was necessary, whereas, others thought it was not necessary as long as they were willing to postpone immediate impulses and stay at home practicing music rather than going out to have fun with their friends. Delay of gratification also mediated the effect of self-efficacy and self-regulation on hours of music practice, and that indirect effect explains a significant amount of variance ($R^2 = 18$). These findings suggest that delay of gratification plays a pivotal role in music learning, which support Bembenutty’s (2002) study in which he found a direct and indirect effect of academic delay of gratification and self-efficacy on academic performance among non-music college students.

Although self-efficacy was related to music practice ($r = 21$), it did not affect music practice directly; rather, the relationship was mediated primarily via self-regulation and delay of gratification. This suggests that for these students self-efficacy alone is not a sufficient condition to practice music. In addition, they need to use appropriate self-regulatory strategies if they want to successfully complete their music assignments, seek help from appropriate sources, maintain a low level of anxiety, and delay gratification.

In summary, the results of the path analysis showed that students’ self-efficacy beliefs to successfully complete their music practice had a direct effect on their willingness to delay gratification and self-regulation of learning music. Students’ self-efficacy beliefs and self-regulation influenced their use of help seeking and anxiety level. These self-regulatory beliefs and behaviors in turn had a direct or indirect impact on students’ music practice.

The third research objective examined what characteristics of music students are useful for predicting their perception of themselves or the teacher as more responsible for motivation, behavior, and use of strategies for learning music. Research studies showed that (Kitsantas & Zimmerman, 2009; Zimmerman & Kitsantas, 2005) perceived responsibility was predicted by self-efficacy for learning, quality of homework, and prior academic performance among parochial high school girls and college students. In this music study, the lack of a model fit when perceived responsibility was included in the proposed model is notable. Based on the correlation analysis, perceived responsibility was only associated with intrinsic motivation ($r = .16, p < .05$), and it was excluded from the final model.

The results of the cluster analysis based on whether students believed that the teacher rather than they were more responsible for learning music revealed two highly interpretable solutions. Some students believed that their teachers were mainly responsible for their motivation, behavior, and learning music differed and some students believed that they were mainly responsible for learning music. However, delay of gratification was the only variable that significantly distinguished these two groups of learners.
After controlling for gender, delay of gratification significantly predicted cluster classification. Students with a higher tendency to delay gratification reported that they were more responsible for their learning while students who believed that the teachers were more responsible tended to report low preference for delay of gratification. Consequently, when music students are unable or unwilling to postpone immediately available rewards to achieve long-term music goals, they tend to believe that their teachers are more responsible for their music skills.

**Educational Implications and Directions for Future Research**

This study suggests that hours of music practice and frequency of doing music practice are a function of students’ motivational beliefs and use of self-regulatory learning strategies. The current findings attest to the important role of self-efficacy, self-regulation, delay of gratification, and help seeking in mastery of music skills. Taken together, these findings call for music educators to assist their students in acquiring the necessary confidence level to master music skills. Following Bandura (1997), educators could use verbal prompts, such as “You can do it,” and “Believe that you have the skills to perform this piece of music,” in order to enhance students’ self-efficacy beliefs.

In relation to self-regulation, educators could model to the students the appropriate music steps, help them to set specific and attainable goals, and show them how to check for mistakes during music practice. Similarly, educators could motivate students to strategically seek help from appropriate sources such as knowledgeable peers, tutors, or parents. Music teachers should be available to students and maintain an open door disposition for the students to seek help when it is needed. Music teachers could help their students delay gratification by showing them how to set priorities, to value the importance of practicing music, to monitor their practice, and to avoid distractions that would prevent them from reaching the music homework goals.

This study has some limitations. First, the sample size is relatively small. However the statistical power (Cohen, 1992) is of a sufficient size to establish an adequate goodness of fit for the path model. A second limitation of this study was that the only objective report of the students’ behavior and performance was obtained by the instructors. Observation across time could have revealed more information about the students’ actual behavior. Nevertheless, future studies should consider examining students’ motivational beliefs, use of self-regulatory strategies, and music practices more frequently during the semester. A comment is required about the participants and academic context used in the present study. The music students were all of Indian descendant and they live in a social environment in which parents are very supportive of their children music education. Thus, the findings of the study may not generalize to other populations.

In summary, the results have important implications for music education of students with low level of motivation and those who lack self-regulatory learning skills. First, music teachers should be aware that students could benefit from more
instructional support as well as from training enhancing their self-efficacy beliefs. Second, these students should be taught that seeking help from appropriate sources when it is needed is not an indication of dependence, low self-esteem or self-worth. Rather, they should understand that seeking help is indeed a way for them to become autonomous and self-directed while practicing challenging music assignments.

References


Appendix A
Figure 1. Predicted Model

![Appendix A Figure 1. Predicted Model diagram](image-url)
Appendix B
Figure 2. Final Model

- Self-efficacy for Learning Music
- Delay of Gratification for Learning Music \( R^2 = .10 \)
- Help Seeking for Learning Music \( R^2 = .11 \)
- Music Anxiety \( R^2 = .17 \)
- Frequency of Doing Music \( R^2 = .21 \)
- Hours of Music Practice \( R^2 = .18 \)
About the Authors

Darshanand Ramdass is an Assistant Professor in the Department of Psychology at St. Joseph’s College, NY. He graduated from The Graduate Center, City University of New York under the mentorship of Distinguished Professor Barry J. Zimmerman. Prior to his appointment at St. Joseph’s College, he completed a three-year postdoctoral fellowship at the Graduate Center and NYU Steinhardt School of Education. His research interests are social cognitive theory of learning and motivation, self-efficacy, calibration, attention and memory, cognition, and technology in educational settings.

Héfer Bembenutty is an Associate Professor in Educational Psychology at Queens College of The City University of New York in the Department of Secondary and Youth Services, where he serves as the department chair of the Assessment Committee and coordinates the Brown Bag Seminars. Dr. Bembenutty obtained his doctorate from The City University of New York, Graduate Center, in educational psychology under the mentorship of Professor Barry J. Zimmerman. His research interests are self-regulation of learning, the effects of test anxiety on learning, homework self-regulation, self-efficacy beliefs, multicultural education, and academic delay of gratification.
Implicit Theories of Intelligence, Achievement Goal Orientation, and Academic Achievement of Engineering Students

Carlo Magno
De La Salle University, Manila

Abstract
The present study investigated how individuals’ belief about intelligence affects their achievement goal orientation, and in turn, results to better academic achievement. More specifically, when learners believe that intelligence can be improved, their goal orientation is more on mastery and this leads to better achievement. A model was tested using path analysis with 291 engineering students in Manila, Philippines. It was found that achievement goal orientation had no direct effect on academic achievement. On theories of intelligence, incremental theory was both significantly predicted by performance approach and mastery approach while entity theory predicted performance approach and performance avoidance. This supports the findings that entity theorists indeed tend to adopt performance goals while incremental theorists tend to adopt mastery goals. It was also found in the study that even incremental theorists actually adopt performance approach goals indicating that individuals who believe that intelligence can be improved still carry out tasks in comparison to others.

Keywords: Incremental Theory, Entity Theory, Achievement Goal Orientation

Introduction

Individuals’ beliefs about themselves influence much how they perform and what they can actually do. If a person thinks that one’s characteristic like intelligence can be improved, they engage in ways to enhance it and this allows them to perform better in school or in any academic engagement. The idea on the belief about intelligence is explained by Blackwell, Dweck, and Trzesniewski, (2007) in their implicit theory of intelligence. The implicit theories of intelligence are based on the assumption that an individual’s main beliefs have the power to determine the ways he or she responds to various situations including challenges and setbacks (Blackwell, Dweck, & Trzesniewski, 2007). In this theory, there are two governing beliefs of individuals about intelligence. The first one, entity theory of intelligence, which is described as individuals who believes that intelligence is fixed and thus, could not be changed. The second one, incremental theory of intelligence, is ascribed to individuals who believes that intelligence is malleable and therefore, could be improved. These theories exhibited as two contrasting mindsets are said to have a significant effects on the academic goals that individuals set for themselves.

It is proposed in the present study that individuals’ implicit theory of intelligence produce distinct achievement goals. Achievement goals are “competence-relevant aims that individuals strive for in achievement setting” (Elliot, Maier, Binser, Friedman, & Pekrun, 2009, p. 15). Elliot and McGregor (2001) conceptualized achievement goals as a 2 x 2 framework.
(1) Mastery approach goals – the goal is seeking to learn and to master the task.
(2) Mastery avoidance goals – avoiding the task due to feelings of incompetence and incapability of accomplishing the task.
(3) Performance approach – focusing on outpeforming others.
(4) Performance avoidance – avoidance of performing poorly relative to others.

It is postulated in the present study that individuals with an entity mindset tend to take on performance or avoidance goals in order show or prove the intelligence that they have. On the other hand, individuals with an incremental mindset tend to take on mastery or learning goals in order to develop this intelligence (Mellat & Lava诶n, 2011). Believing in an entity theory also means believing that one is predisposed with a specific amount of knowledge that one can no longer change; Entity theorists' orientation is towards measuring their given ability and avoiding challenges that might be a revelation of a lack of it. This characteristic allows them to have a performance or avoidance goal when engaging in tasks. On the other hand, believing in an incremental theory also means believing that things can be learned and intelligence can be developed; incremental theorists' orientation is towards sharpening their given ability and looking forward to challenges that can further enhance it (Blackwell, Dweck, & Trzesniewski, 2007). These characteristics are consistent with adapting a mastery goal that is associated with successful learning outcomes.

According to Dweck, incremental theorists focus on mastery goals rather than performance goals, believe in the utility over the futility of effort, and exhibit mastery-oriented strategies over helpless ones (Dupeyrat & Marine, 2005). However, implicit theorists of intelligence do not mean to claim that endorsing an incremental mindset follows the premise that everyone have the exact same potential in any field nor that everyone can learn everything equally. They believe that the intelligence of anyone can be developed.

In the academic setting, implicit theories of intelligence influence how students approach their learning and achievement, the goals they adopt, and the effort they expend in their work (Dupeyrat & Marine, 2005). Because the two key concepts of Dweck’s postulates are the beliefs about intelligence (entity or incremental) and goal orientation (performance or mastery), the relationship between these two sets of twin constructs and their impact on academic achievement has been a widely researched area for the past two decades (Dupeyrat & Marine, 2005). However, previous studies only focused and used the old concepts of achievement goals with factors of performance and mastery. The relationship of implicit theories of intelligence with the 2x2 achievement goals needs to be validated if the same pattern of prediction will occur.

In this span of time, Dweck has lobbied for the validity of implicit theories of intelligence as a proximal determinant of achievement with the mediating role of achievement goal orientations. Other researchers followed and engaged in their own
investigation of the phenomenon (e.g., Robins & Pals, 2002; Gialamas & Leondari, 2002; Dupeyrat & Marine, 2005; Blackwell, Dweck, & Trzesniewski, 2007). However, results have not been consistent in supporting or negating Dweck’s initial contention that one’s theory of intelligence affects one’s achievement goal orientation and in turn results to academic achievement.

First, there has seemed to be inconsistent relationships between implicit theories of intelligence and achievement goal orientation across studies. If any relationship was found, it was often weak and unstable across different studies (see Dupeyrat & Marine, 2005). It was revealed in one study that the entity theory had a significant relationship with performance goals but not with mastery goals. This implies that endorsing and entity theory does not mean an individual no longer pursues mastery goals. On the other hand, another study pointed that while the entity theory was negatively correlated with mastery goals, it had no significant relationship with performance goals. This also indicates that holding a fixed view of intelligence (entity theory) does not necessarily translate into preferring to display one’s intelligence (performance goal orientation) over developing one’s intelligence (Mastery goal orientation).

In the next postulate of Dweck’s, the relationship between achievement goal orientation and academic achievement has been proven to be significant with the use of deep processing strategies and effort expenditure (Dupeyrat & Marine, 2005). It was found that setting up mastery goals leads to deep processing strategies and effort expenditure which in turn positively affects academic achievement. On the contrary, setting up performance goals leads to shallow processing strategies which in turn negatively affects academic achievement. Moreover, setting up work avoidance goals or performance avoidance goals leads to the use of shallow processing strategies and withdrawal or lack of effort required for academic achievement (Dupeyrat & Marine, 2005). In the course of the said study, employing a path analysis has also been proven to be useful in explaining the aforementioned variables on their relationships and in predicting academic achievement (Dupeyrat & Marine, 2005).

Furthermore, it has been established that goals do have an indirect effect over achievement via the mediation of perceived competence (Gialamas & Leondari, 2002). What has remained lacking until now is the consistent evidence on the significant relationship of implicit theories of intelligence and achievement goal orientations. Also, the positive influence of incremental theory on academic achievement has yet to be strongly established.

In the past, the positive effect of incremental theory of intelligence on academic achievement was longitudinal in nature (Blackwell, Dweck, & Trzesniewski, 2007). Incremental theory of intelligence forms an interrelated network of variables with learning goals, positive strategies, positive belief efforts, and low helplessness attributions, resulted to an increasing trajectory of math grades across junior high school (Blackwell, Dweck, & Trzesniewski, 2007).

In higher education, it is believed that entity theorists exhibit a pattern of helpless response while incremental theorists exhibit a mastery-oriented one in the
face of academic challenges. Because of such challenges, it was also revealed that self-esteem of entity theorists decline during college while that of the incremental theorists’ increase through the mediation of achievement goal orientation (Robins & Pals, 2002). Moreover, there was also a study that revealed that college students who were taught modules on upholding an incremental mindset earned higher grades and SAT scores (Blackwell, Dweck, & Trzesniewski, 2007) than those who were not.

Using path analysis, this study aimed to add to the growing research about implicit theories of intelligence, achievement goal orientation, and academic achievement that attempts to clarify the relationship between these three constructs. For a wider and more recent explanatory finding, the research shall make use of the 2x2 achievement goal orientation proposed by Eliot and McGregor (2002) that includes mastery avoidance to the three previously constructed ones – mastery approach, performance approach, and performance avoidance.

On a more specific note, this study also tested whether incremental theory and entity theory affects academic achievement via achievement goal orientation. First, this study hypothesized that both incremental theory and entity theory predicts the four achievement goal orientations (mastery approach, mastery avoidance, performance approach, and performance avoidance). In turn, the use of such achievement goals leads to academic achievement.

Finally, the relationship between the three constructs will be contextualized by studying the phenomena among university students majoring in Engineering. The engineering students would be an inappropriate sample to test the postulates on. Highly patterns of achievement behavior should be strongest when students are constantly faced with challenging tasks (Blackwell, Dweck, & Trzesniewski, 2007). By looking into highly varying patterns of achievement, the research also hoped to find a wider and more conclusive explanation of the proposed phenomenon.

Method

Participants

The participants were 291 Filipino college students from a university in the National Capital Region of the Philippines. Ages ranging from 17 to 22 years ($M = 19.09, \text{SD} = 1.25$), the sample is composed of 215 males and 76 females ($N = 291$) all enrolled in an engineering course. All the participants were engineering majors and proficient in English.

Instruments

Implicit Theory of Intelligence Scale (ITIS). The ITOS was developed by Abd-El-Fattah and Yates (2005) to measure individuals’ implicit theories of intelligence. The scale originally consists of 14 items. Out of the 14, the 10 items with the highest factor loadings, .60 and above, were used in the study. There are 5
items that measures entity theory while the other 5 measure incremental theory. Participants rate how much they agreed with each statement on a 4-point Likert type starting with 1 for “Strongly Disagree” to 4 for “Strongly Agree.” Sample questions are “You can develop your intelligence if you really try” for incremental theory, and “You are born with a fixed amount of intelligence” for entity theory. The two subscales proved to be appropriate with a satisfactory goodness of fit and internal reliability (Abd-El Fattah & Yates, 2005).

**Achievement Goal Orientation Questionnaire.** The instrument was constructed by Elliot and McGregor (2001), the scale aimed to measure the different goal orientations individuals in a 2x2 framework with profiles such as mastery approach, mastery avoidance, performance approach, and performance avoidance. There is a total of 12 items with 3 items per each profile. Participants rate how much they agree with each statement on a 7-point likert scale starting with 1 for “Not very true of me” to 7 for “Very true of me.” Sample questions are “It is important for me to do better than other students” for performance approach, “I worry that I may not learn all that I could possibly learn in this class” for mastery avoidance, “It is important for me to understand the content of this course as thoroughly as possible” for mastery approach, and “My goal in class is just to avoid performing poorly” for performance avoidance. All the 12 items had over .70 in factor loadings. The scale exhibits internal consistency and empirical difference among its constructs (Elliot & McGregor, 2001). Through an exploratory factor analysis, four indices emerged from the constructed achievement goal orientation. These four indices also proved to be separate entities and internally consistent.

**Cumulative Grade Point Average.** The engineering student CGPA was determined at the end of the semester or term. This CGPA was used an indicator of students achievement.

**Procedure**

Engineering classes were randomly selected in different colleges and universities. For the first five minutes of each class period, the students were asked to answer the questionnaires. On the upper part of the questionnaire, the cumulative grade point average (CGPA) was also requested. All of the respondents were first informed about the purpose of the study and their consent was asked. The participants took about 20 to 30 minutes in completing the questionnaires.

Path analysis was used to explain the hypothesized causalities among the implicit theories of intelligence, achievement goal orientation, and academic achievement. All causalities were additive and linear.

Out of the 300 questionnaires given, nine were deemed invalid because no CGPAs were included. Without the CGPA, the other variables will not be able to contribute to the expected outcome. The remaining 291 responses were encoded and
analyzed statistically using a zero-order correlation and then the hypothesized model was tested using a path analysis. The model was tested if it fits the observation by examining the goodness of fit indices using Root Mean Square Error Approximation (RMSEA), Goodness of Fit Index (GFI), Adjust GFI (AGFI), and Chi-square test of variance.

Results

The mean scores and standard deviations of the measured variables were tabulated. The variables entity theory, incremental theory, mastery approach, mastery avoidance, and performance approach, performance avoidance, and CGPA, were intercorrelated. A path analysis was then conducted to test the effect of entity theory and incremental theory on the four achievement goal orientations.

Table 1
*Mean Scores and Standard Deviations of Implicit Theories of Intelligence, Achievement Goal Orientation, and Cumulative Grade Point Average*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>N</th>
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<td>0.53</td>
<td>291</td>
</tr>
<tr>
<td>Incremental Theory</td>
<td>3.30</td>
<td>0.66</td>
<td>291</td>
</tr>
<tr>
<td>Mastery Approach</td>
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<td>291</td>
</tr>
<tr>
<td>Mastery Avoidance</td>
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<td>1.33</td>
<td>291</td>
</tr>
<tr>
<td>Performance Approach</td>
<td>4.50</td>
<td>1.37</td>
<td>291</td>
</tr>
<tr>
<td>Performance Avoidance</td>
<td>5.31</td>
<td>1.28</td>
<td>291</td>
</tr>
<tr>
<td>CGPA</td>
<td>2.48</td>
<td>0.48</td>
<td>291</td>
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</table>

For the scale measuring implicit theory of intelligence, scores for entity theory averaged at 2.30, just a few values above midpoint. Meanwhile, scores for incremental theory averaged near the highest possible value which is 4. For the scale measuring achievement goal orientation, mastery avoidance scored high at 5.64 out of a possible 7, being the highest value one can rate his or her agreement with a specific goal orientation. Performance avoidance is also above midpoint at 5.31. Mastery avoidance and performance approach averaged at the proximal distance of the midpoint, which represents the rating given by an individual if he or she is not sure or just stand neutral on a statement referring to a particular goal orientation at 4.73 and 4.50 respectively.
### Table 2

**Intercorrelations among Implicit Theories, Goal Orientations and CGPA**

<table>
<thead>
<tr>
<th></th>
<th>Performance Approach</th>
<th>Mastery Approach</th>
<th>Mastery Avoidance</th>
<th>Performance Avoidance</th>
<th>Entity Theory</th>
<th>Incremental Theory</th>
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<td>.04</td>
<td>.04</td>
<td>-.04</td>
<td>.04</td>
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</tr>
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<td>---</td>
<td>.28*</td>
<td></td>
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<td>.17*</td>
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<tr>
<td>Mastery Approach</td>
<td>---</td>
<td>.49*</td>
<td>.28*</td>
<td>.11</td>
<td></td>
<td>.11</td>
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<tr>
<td>Performance Avoidance</td>
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<td>---</td>
<td></td>
<td>.36*</td>
<td>.04</td>
<td>.29*</td>
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<tr>
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<td></td>
<td>.23</td>
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<tr>
<td>Incremental Theory</td>
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<td></td>
<td>.16*</td>
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</tbody>
</table>

*p < 0.05*

Results of the zero-order correlations show that three out of four goal orientations, performance approach, mastery approach, and performance avoidance, were significantly intercorrelated. Moreover, entity and incremental theories were also significantly intercorrelated. Building on the proposed model, entity theory was only significantly correlated to performance approach while incremental theory was significantly correlated to performance approach, mastery approach, and performance avoidance. CGPA did not significantly correlate to any subscale of the achievement goal orientation or implicit theories of intelligence.

The path analysis was used in order to test the hypothesized model. First, entity and incremental theories were used to predict the four achievement goal orientations, mastery approach, mastery avoidance, performance approach, and performance avoidance. Then the four achievement goal orientation was used to predict CGPA.

The results showed that both entity theory and implicit theory were significant predictors of performance approach with .219 and 0.138 estimates respectively (*p*<0.01). Meanwhile, incremental theory was the only significant predictor of mastery approach with an estimate of .287 (*p*<0.01). Entity theory was
the only significant predictor for performance avoidance. Both entity and incremental theories did not significantly predict mastery avoidance.

In the initial path analysis, the variables in the model produced a very high variance ($\chi^2 = 150.00$). The significant $\chi^2$ value means that there is a huge difference between the model and observed covariance of the model. The Root Mean Square Error of Approximation (RMSEA) of 2.33 for the default model and 1.83 for the independent model failed to reach the standard of 0.05 to be considered a good fit or at least 0.08 for an adequate one. The values stating the goodness of fit index (GFI) are 0.866 for the default model and 0.799 for the independence model. Both values fell short of 0.900, the least value a model must arrive at for goodness of fit. Support for the model was not established well. The values for the Adjusted Goodness Fit (AGFI) were also far from their GFI. AGFI value for the default model was 0.582 while 0.732 for the independence model. The closer the AGFI is to the GFI, the better the fit of the model.

![Path Diagram of Hypothesized Model](image)

*Figure 1. Path Diagram of Hypothesized Model. ENT: Entity theory, INC: Incremental theory, PAPP: Performance approach, PAV: Performance avoidance, MAPP: Mastery approach.*
To fit the model better, a second path analysis was conducted to test only the variables that proved to have significant paths coefficients. The $\chi^2$ value dropped to 68.43 indicating improvement in the model. There was also an improvement in the RMSEA and GFI with values .06 and .91 respectively.

![Adjusted Path Diagram of Hypothesized Model](image)

*Figure 2. Adjusted Path Diagram of Hypothesized Model. ENT: Entity theory, INC: Incremental theory, PAPP: Performance approach, PAV: Performance avoidance, MAPP: Mastery approach.*

**Discussion**

The study initially hypothesized that entity and incremental theory if intelligence will have distinct effects on a specific achievement goal orientation while the use achievement goals like mastery results to better achievement. However, the results did not support all hypothesized effects. The findings showed that the students’ achievement goal orientation did not significantly predict their CGPA.

The results in the zero-order correlations initially showed the implicit theories of intelligence and achievement goal orientation with the academic achievement as measured through the CGPA are not linear as it was proposed. Academic achievement may not be as easily derived at by the chain of constructs such as belief and goal orientations. Previous studies suggest some specific competence variables allow one’s achievement goals to predict academic achievement. There are also some studies indicating the lack of potency of achievement goals in predicting students achievement (see Gialamas & Leondari, 2002). The quality of action and strategies an individual utilizes greatly influences
the fulfillment of his goals and the birth of his achievement. Related literature strongly indicate that achievement goal orientation has a direct effect on academic achievement when mediated by deep processing strategies and effort expenditure (Dupeyrat & Marine, 2005; Blackwell, Dweck, & Trzesniewski, 2007). In the case of the studies findings, it is not only implicit theories of intelligence that determines the goal that one sets for himself in the academic workplace. There is also academic self-efficacy or one’s belief in his academic capabilities and epistemological beliefs of learning or how learning takes place and how it is acquired. Intelligence is a multi-dimensional construct and students view some aspects of their intelligence such as mathematical or verbal and together with achievement goals could not serve as a stable predictor of general academic achievement such as CGPA. Among Asian learners, aside from beliefs about constructs of intelligence and the intelligence one has, other factors such as priorities, family roles, and other environmental factors also have a hold in determining students’ academic achievement.

What is notable in the results is that performance approach was consistently predicted by both incremental and entity beliefs of intelligence. This turned meaningful in the model considering the social nature of the performance approach goal. The performance approach goal is focused on wanting to be perceived by others as competent but not to improve oneself. The performance of the individuals depend on others perception. Given ones belief about intelligence, the expected perception is not differentiated between both entity and incremental. Both beliefs regardless whether it is fixed or changing make individuals see the importance of others in shaping their performance on a task. However, this goal does not actually translate and facilitate into ones academic achievement.

Entity and incremental beliefs effect on achievement goals was distinguished for performance avoidance and mastery approach. The results of the model showed that individuals with entity beliefs about intelligence adopt more of a performance avoidant goal while individuals’ who has an incremental belief adapts more of the mastery approach. This was consistent with the hypothesis of the study. A fixed belief about intelligence makes one avoid challenging and difficult tasks. In other words, when one believes that intelligence cannot be improved, they avoid tasks that would be difficult for them. However, they maintain certain effort in their performance when comparing themselves with others (effect of entity on performance approach is also significant).

On the other hand, the results also showed that individuals’ with incremental beliefs about intelligence adapts mastery orientation. In other words, when learners view intelligence as changing and improving, it allows them to focus on mastering and learning tasks. Mastery approach goal is adapted by individuals who exert effort in learning for the sake of learning and not comparing themselves with others. This goal is best predicted when individuals view intelligence as a construct that can be improved.

It can be drawn from the study that an individual subscribing to the belief that intelligence can be developed do not necessarily mean that the they are limited to endorsing goals that are mastery-oriented and intelligence-developing in nature.
This result showed that even an incremental mindset can set up goals that allow them to exhibit their skill sets and to perform normatively well. However, only entity theory was a significant predictor of performance avoidance. This implies that since an entity theorist is convinced that his intelligence is only up to a certain point; they will avoid situations wherein they will perform poorly. For them, the intelligence they have can no longer be improved or built upon. This result supports the previous findings that entity theorists exhibit more helpless response patterns than their incremental counterparts (Blackwell, Dweck, & Trzesniewski, 2007; Robins & Pals, 2002). Only an incremental theory was a significant predictor of mastery approach. This confirms Blackwell, Dweck, and Trzesniewski’s (2007) hypothesis that believing intelligence as malleable leads to endorsing goals that can further enhance or develop one’s skills and abilities as much as he can. In the educational setting, this affirms the importance of teaching or encouraging students to uphold a personal belief that they can improve and always build on whatever knowledge that they have. Moreover, informing students of the repercussion that comes with endorsing an entity theory and performance avoidance goals at the same time may enable them to be more cautious of responding to academic challenges with a helpless response rather than a learning response.

The distinction between entity and incremental theory of intelligence are further distinguished by the achievement goal orientation that they produce. This further extends theory on the implicit theory of intelligence especially how each belief leads to a specific achievement goal. This perspective further supports the link between implicit theory of intelligence and achievement goals.

References


Self-care Strategies among Malaysian Counselors

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Abstract
This qualitative, explorative study is aimed at identifying effective self-care strategies employed by Malaysian registered counselors. Four participants who were registered counselors with at least seven years in practice were interviewed and their self-care methods used were classified and fitted into Norcross’s (2000) practitioner-tested, research-informed self-care strategies known as Norcross self-care strategies (CSCS). The results show that all four participants were aware of self-care issues and strategies. Most of the self-care strategies listed in CSCS were rated as frequently used and effective. The self-care methods employed by participants were grouped under self-care strategies compiled by Norcross.

Keywords: self-care, counselor, job satisfaction.

Introduction

According to Malaysia Board of Counselors, the number of registered counselors in Malaysia has increased to over 1,600 members to date. With the rapidity of growth in this field, it is foresee a higher demand on its professionalism in the future. The Counselor Act 1998 or Act 580 was introduced in 1998 to require professional counselors to be registered in order to safeguard the quality of services. However, this profession is still in the transitional period whereby non-professionals run little risks in our law for providing counseling services. The implementation of Malaysian law in this regard is not firm partly due to the insufficient supply of qualified counselors. Hence, Malaysian registered counselors are in an awkward situation. On one hand, they have to raise their competence level at par with the standard approved by the American Psychological Association. On the other hand, they have to mend any damage brought by fraudulent counselors or psychologists who seize the opportunity to make a fortune out of this market. This condition may affect most licensed counselors in terms of reputation and job satisfaction.

Self-care is imperative for counselors because “ultimately, our single most important instrument is the person we are, and our most powerful technique is our ability to model aliveness and realness” (Corey, 2005, p. 34). Inevitably, counselors bring their human qualities and life experiences to every therapeutic session, in addition to all their theoretical and practical training at graduate schools. Therefore, if they are unaware of their own personal needs and unresolved conflicts to the
point of ignoring them, they would hinder their own growth, and subsequently fail to promote growth and change in their helpees (Corey, Corey,&Callanan, 2003).

Norcross (2000) compiled “10 consensual self-care strategies” which are “clinician recommended research informed and practitioner tested” (p. 710). The categories of self-care strategies listed (Norcross, 2000, p. 710-713) are: 1) Recognize the hazards of psychological practice, 2) Think strategies, as opposed to techniques or methods, 3) Begin with self-awareness and self-liberation, 4) Embrace multiple strategies traditionally associated with diverse theoretical orientations, 5) Employ stimulus control and counter-conditioning when possible, 6) Emphasize the human element, 7) Seek personal therapy, 8) Avoid wishful thinking and self-blame, 9) Diversify, diversify, diversify, 10) Appreciate the rewards.

According to Norcross (2000), the nature of the counseling practice can be exhausting and draining. Thus, it is healthy for the counselors to understand the ‘universality of hazards’. Besides, it is recommended that counselors focus on extended strategies instead of particular techniques. The trend is moving towards eclectic approach rather than sticking with one theory. The very essence of self-awareness is what makes a counselor adjustable to oneself and the environment. Norcross (2000) found out that psychotherapists rarely use stimulus control as a strategy as opposed to employing interpersonal boundaries and he recognized the use of counterconditioning which consists of different methods like relaxation, assertion, cognitive restructuring, exercise and diversion. Utilizing interpersonal relationships and undergoing personal therapy are also the way of promoting self-care. Wishful thinking and self-blame are two elements which correlate with impairing the ability of counselors in effective self-care. Wishful thinking is a kind of avoidant coping which focuses on what or would have been, instead of actively and practically solving problems. Diversification is an excellent stress management strategy for mental health providers. Lastly, balancing the hazards of this practice with privileges gained is crucial to keep therapists motivated.

The practice of counseling itself can be demanding, challenging, and emotionally taxing, in which counselors are more likely to experience “compassion fatigue” (Figley, 2002; Weiss, 2004) when caring for emotionally stressed or distressed clients. If left unattended or handled inappropriately, counselors may expose themselves to greater risks of “distress, burnout, vicarious traumatization, and eventually impaired professional competence” (Barnett, Baker, Elman, &Schoener, 2007, p. 603). These affected counselors may experience occupational hazards such as “depression, anxiety, substance abuse, and relationship dysfunction” (Gilroy, Carroll, &Murra, 2002, p. 402).

Counselor’s self-care is imperative both ethically and practically. Viewing the importance of this subject and the scarcity of local documentation on various effective and applicable methods on Malaysian counselors’ self-care, this explorative, qualitative finding would open up a new area for further discussion and research. For the purpose of this study, two research questions were used as a guideline to gather information from the counselors, which were “Are registered counselors
aware of various self-care strategies which may help to promote their well-being?” and “What are the self-care strategies used by registered counselors?”.

Method

This study gathered data by employing self-report methods. It combined both semi-structured interview and self-care rating scale in an attempt to describe how seasoned, licensed counselors preserve and energize themselves in this stressful, people-related career. Semi-structured interview was used in this study because it is easier to compare the responses of each individual participant. This is the most common form of interview for qualitative studies (Barker, Pistrang, & Elliott, 2002).

Participants

Potential participants were introduced by counselors or counseling students whom the researcher has in contact. The criteria for inclusion in this study included (a) at least seven years in practice, (b) recognized by Lembaga Kaunselor or Board of Counselors as one of their members, and (c) resides and practices in the Klang Valley – one of the busiest and most sophisticated areas in Malaysia. A total of four experienced, registered counselors were identified who met the criteria participated in this study with one female and three male counselors. Their length of experience ranged from 8 to 25 years.

Procedures

Each participant was contacted by phone and asked to participate in a study about self-care strategies. An email describing the study and interview procedure followed and verbal consent was obtained before the interview was conducted. A pilot interview was conducted on a non-registered counselor, who has six years of experience in practice, to help determine the final set of interview questions and the modified questionnaire.

Analysis

The data analysis is based on the grounded theory analysis developed by Glaser and Strauss (1967), which is widely used by qualitative researchers in many disciplines. In the first level, the collected data from the interviews and the researcher’s self-report were transformed into verbatim transcription. The relevant statements were identified from the verbatim transcription and were grouped into several meaningful categories under Norcross self-care strategies (CSCS).
Results

Awareness on Self-care and Strategies

The researcher was careful not to directly ask whether the participants were aware of self-care strategies since it might offend these experienced counselors. Instead, the question posed was: “Talking about self-care strategies, what do you have in mind about these strategies?” All participants were able to answer this question with thoughtful, inspiring answers leaving no doubt of their seasoned, after-experimented state in both professional and personal self-care. Below are the concepts or terms mentioned, with excerpts from the interviews.

A. Self-care is essentially related to personal development.

Two out of four participants pointed out the concept of “counselors as the therapeutic tools”. Both of them refer to personal development in counselors as an important element in self-care, not so much of following through some specific strategies.

So when you talk about self-care strategy – No. 1: It is not just a strategy, certainly a personal development. The sense of self – who you are, what you are, what you know you’re in here for. What are your goals, your hope, your aspiration? Are they realistic? What are the organization demands of you – can you manage? cannot manage? If you can’t, know how to let go, how to assign other people if you can’t do all of them – those things would be difficult, painful, but know how to cope with it. All of these come from someplace within the therapist, you see. (#1)

... The first part [in Satir model], we greatly emphasize “congruence.” If you want to be a congruent person, you must first take care yourself as a person, especially in the counseling relationship. Counselor is the most important tool. When we ourselves are tools, our self-care is very important. (#2)

B. Individual counselors have their own preferences of self-care strategies.

All participants expressed their own self-care strategies as personal and mentioned how they work for themselves. Two participants explicitly mentioned that self-care strategies are subjective, and the other two hinted that the strategies they applied are their own personal preferences.

But different people, they have different things. But I guess for myself, apply for myself. Learn how to make time. If schedule is so heavy, I have to find time. So therefore quality time becomes very, very precious. (#1)

... Because each person needs to develop one’s own self-care strategy. They are tailor-made methods and techniques for individuals. How I
should pay attention to certain aspects and do what is useful towards caring for myself. Therefore I say [self-care] strategy could be anything. This is what I think. (#2)

C. Self-care should be viewed holistically.
   One participant was doing his doctoral research on holistic development. He believed that holistically caring for oneself is important. However, one important aspect is holistic, which is how each different aspect interacts with self... Viewing oneself holistically, how you handle each aspect and do not allow the stress to grow bigger and hence, malfunction occurs. Holistic – people have all kinds of needs. You cannot eliminate certain needs and think they are insignificant. (#4)

D. Self-care has not only physical, mental, and spiritual aspects. It also includes social and environmental aspects.
   I agree with your definition that a person takes care of oneself in physical, psychological, and spiritual aspects... Not only these few aspects, there are other aspects like relationship, for example friendship. It can be termed “social”. Another aspect is physical environment, like working environment – very important. These aspects are fairly important in self care... These two added aspects, social and environmental, are according to my own experience. But according to my research in holistic development, there are more branches – altogether fifteen. About twenty something factors. (#4)

E. Self-care methods will change according to different stages of development in the profession.
   I would like to say that a counselor, whether he is a beginning counselor learning to be a mature counselor, or he is learning to practice as a supervisor, all these are at different stages of development. At these different stages of development, what would be different in a counselor’s self-care? Therefore it is based on stages. Each stage has different self-care and strategies. For instance, when you have just started practicing, you stress on your counseling effectiveness. Most of the time you will focus on “Am I a good counselor?”, “How to practice well?”, “How should I master my counseling skills effectively?”. This is always troubling as a beginner. But when you are more mature, you will see that you have already mastered these skills. But how effective it is? This is one aspect. When you become more and more mature, and now in Malaysia we are lack of supervisors, or in the process of your growing [as a professional], you don’t have supervisor to lead you, that is another level of stress [to that particular counselor]. When you have developed and become a
supervisor, your question now is not only “Am I a good counselor?”; you have to also ask “Am I a good supervisor?”. Therefore you have different roles now. (#2)

Identification of Individual Self-care Strategies

Every participant emphasized that their self-care strategies works particularly for themselves. Each of them presented different patterns in the use of self-care strategies which pertain to their personalities and theoretical orientations. Therefore, these self-care methods are presented as reported by each participant.

Self-care methods reportedly used by Participant #1 are:

i)  Prioritization
   You have to prioritize certain things, some things are more important than other things.

ii) Delegation
   You have to learn how to delegate. You cannot be superman. You are not expected to be superman. There is only one of you. You have to plan for things ahead of time. You do not create the mechanism for whatever happens, need to cope and deal with things, it is part of the delegation process.

iii) Plug into various sources
   But when you are also involved in the business..., and everyday you are just bombarded with so much negativity. Learning to be what we called Jung: self-generating personality, learning to plug into various sources.

iv) Finding quality time
   Learn how to make time. If schedule is so heavy, I have to find time. So therefore quality time becomes very, very precious.

v)  Saying “No” (or boundary setting)
   Find time on weekends is something I have to learn now to say no. Sundays, Saturdays, weekdays in the evening,... call me to take a client. “No I manage only one client a semester, outside of my hours”...
   So when weekend comes, I have to then be cancelable, know how to make certain kinds of judgment.

vi) Know my limit
   During the day, I have already seen a lot of my in-house clients, my student clients, my supervisees that I supervise, so I help through that.
For my own personal practice, I have to limit. Much as you want to earn that some additional income ... you have to recognize there is only so much. I am already teaching night class. I am already supervising beyond 6-7 o’clock. I’m in the office in the morning at the same time, 9 o’clock, like everybody else. So I won’t be of any use to anyone if I just keep going this way.

vii) Healthy sense of self
Those decisions have to come from your own sense of self. So if you on the one hand think that you have to be the savior of the rest of the world, people can’t live without you, feel so bad when you say no to people. Which comes from a lot of our influence of insecurity and lack of awareness about ourselves.

viii) Make time for yourself
And so among other things when you do make time for yourself. Then you have to go into continue with your own reading. Your own personal growth and development because your own personal reflection. Time for yourself. So all of us have different tastes now. For some of us, we read. Others may not do.

ix) Being with people or family
For me, my own personal preference is talking to people, being with people that are important to me, spending time with your family.

x) Involve in activities outside work
... getting involved in different kinds of activities outside of your normal work, kind of things.

xi) Religious or spirituality involvement
I was a religious member of that organization. Even though I’ve left, I still go back once in a while whenever they have programs... Whenever I go back there... but being part of that process energizes me. Also, it helps me [to] remember other values, the beliefs... So to be able to plug in with that sort of things once in a while, those are what help you to put in perspective in many things you do.

Self-care methods reportedly used by Participant #2 are:
i) Awareness of my own reactions
When I begin to pay special attention to myself, there are a few aspects that are important. I become quite aware of any reactions I have. How I react to myself and others. I will pay extra attention to my intrapersonal process. I am very sensitive towards my thoughts, actions, feelings, expectations, perception of self-worth, sense of self,
self-image acceptance. This kind of awareness is built up slowly, from time to time. My well-being could not be acknowledged in the beginning.

ii) Well-being (To be vs To do)
Another term is well-being. How do I take care of my well-being. It is interesting to separate this word – when you feel ‘well’, and you take care of your ‘being’, and you will have ‘well-being’. But for most people, they have a lot of ‘doings’. You do a lot of things. Have you ever think about your being? How ‘to be’ versus what ‘to do’? ... When you are “being,” always remember that “live well” is very important.

iii) Focus on here and now
For example, “being” – what is the meaning of life? Not necessary have to be successful. Must understand myself. Must focus on here and now. From moment to moment, time to time. Your awareness towards yourself.

iv) Appreciate my limitation
Appreciate yourself as a human being with limitation.

v) Relationship with others
For me, how each relationship enriches my “self” is important. How can we nourish the relationship with others? Or in our working environment? We emphasize how we interact with these chances. How we enrich our “self”. This section would come back to what we say in communication.

Self-care methods reportedly used by Participant #3 are:

i) Appreciative attitude towards life
The attitude towards life. People should have some stress. Important that people find the balance in their lives. And then they know how to appreciate ...

ii) Goals in life
Most of the stress is what they don’t have control about. They don’t know how to handle... There must have some goals in your life. Once you have goal, whatever stress you experience, you know what you want in life. And you know in this anticipation... there may be some family argument you may be having, there will be some imbalance in the way.

iii) Nature watch
Nature watch.
iv) Talking with people
   Even having conversation on the telephone. I get involved with talking with people. I talk to the class.

v) Take a nap
   Find ways to handle my stress. I do not take medication. When I know that my body is under stress, I will learn to relax, lie down straight and taking nap whatever 20 minutes that I have.

vi) Realistic anticipation
   And handling my stress. Handle accordingly. If you know that you can’t handle the stress, why should you get into it? If it is part of your job, you anticipate what will happen. If you don’t do this, you don’t do that.

vii) Good diet
   For instance, I avoid taking food that is unhealthy or bad habit. That can add to my stress. Then avoid it. I just eat a little bit of this, a little bit of that. I eat a lot of vegetables. I drink a lot of water. One way to get rid of fat in our body. Don’t get into alcohol. Someone bring alcohol beverage. To me, if you want it, just fine. But I don’t want it.

viii) Control the outcome through my own actions
   Knowing my own personality... Plan sometimes. You should know the consequences. But things will not happen the way you want it to happen. What you can anticipate is your action, in your action. And then you know how to handle your life.

ix) Quality sleep
   Tomorrow I have to go to KLIA. Wake up at 6 o’clock in the morning (sometimes 5). I sleep at 2am. But I must have very, very deep sleep. Then I am refreshed. Because I have lots of works to do. I’m not a person who enjoys sleeping long. I take a nap once a while. Sleeping is avoiding what I should be doing. At the end, I’m suffering the consequences: 4 hours. The most is 5, sometimes I might get 6; 7 is very seldom.
   ... driving here and there on my own, 6 hours drive. I’m driving, wherever my clients are. If I don’t have that quality sleep, then I might be in danger.
x) Taking control
Doing absolutely nothing. Reading. Back massage, reflexology. But I don't depend on all those things. I want to do something that I have control of it. I don't want people to do that for me. You do not need somebody’s help. People are not always a good source. I am in control. I don't have to have people. I don't have to have other things. I act on it. I do on it. Whatever I want to do. I do not depend on going to the gym, to the spa. I never go to the spa.

xi) Do chores myself
I do not have to have others. I do it myself. I do my own manicure, pedicure or whatever they are. I iron my own shirt. I do all my ironing. I enjoy ironing.

xii) Pay attention to my dreams
I pay attention to my dreams. But I know that when I'm under stress, my dreams would be depressive... tension. Body’s telling me that it’s not wise to have caused some imbalance.

Self-care methods reportedly used by Participant #4 are:

On the physical aspect:
i) Simple exercises
  ii) Nutrition intake, e.g. less meat
Now that I am older, I found I can’t be like when I was younger. Last time I could regularly do certain things with discipline, like exercise, go to gym, jogging. I discover now many things are coming. I have less discipline to do something. But I will remind myself to do some simple exercises, for example, jogging. But not like last time. Another thing, I pay more attention to what I eat. Now I consume lesser meat. Last time, I like to eat meat and I eat a lot. Last time when I was stressful, I eat more meat. But now I try to cut off. Well, physically, I do these things to help myself. Nutrition intake, and exercise.

On the social aspect:
 iii) Do not talk about counseling with friends
 iv) Networking with other professionals
 v) Spend more time with family
Socially, I retain my own personal living space. For example, I do not like to play professional role. When I am with my friend, I will avoid doing a lot of things in my professional role. Well, when you are a counselor, many people will see you as one in your daily life. These people include your friends, relatives. They will ask you a lot questions. In the beginning when you do this job, you are happy that you can use
the skills in many ways – in your personal life, and friends that you know. Then you discover that your territory is narrower. You discover that you are contained in the role as a counselor. Then I began not to talk about counseling with my friends. I don’t take cases with them. “I’m sorry, I can introduce you a very good counselor. But I don’t want to touch this issue right now.”

Socially, simultaneously, I keep in touch with many professionals (in the same profession). As I say, you cannot survive alone in this profession. The professional can be a counselor or psychologist. When needed, we can do case study / case discussion / peer supervision. I think it is very important for me, professionally.

So socially, I have individual, personal life. I have some professional circles. Now I appreciate more in my familial relationships. Last time, to venture out, I don’t have much thoughts or worries. But now I would spend more time with my family. This is the aspect of social.

On the spiritual aspect:

vi) Spiritual insights on self-transcendence
vii) Religious practices, e.g. mindfulness meditation

Spiritual. I start to have some religious beliefs. I’m a Buddhist. It is not only a religion. It is other than just self-actualization, it is a self-transcendence process. My religion not only helps me to see human problems, it can help me to see people more clearly and sharply than when I was learning counseling psychology. In counseling psychology, it is always looking at the road in front of you, or seeing the future. But religion helps me to see more clearly and sharply. It makes me see transcendentally than life. Religion has many wonderful practices. One aspect is mindfulness meditation. Meditation helps me to focus on a point.

On the emotional or psychological aspect:

viii) Social support
ix) Using other resources, for example, exercise

Emotional, psychological. It pertains to the other aspects. When you feel down or tired, I will go back to social support. There are some people who accepts me and do not think that counselors do not have problems. When I figure why I am so disturbed in [a particular] matter, I later discover that I had a blind spot. I will relate to other resources, including jogging. And my mind will become clearer. My physical body becomes better.

And the last method is:

x) Personal time and space, reading, listening to music, and traveling
Will keep a personal time and space for myself. Reading, listening to music, traveling. These two years I discover I have not gone for traveling. I feel that they are important to me.

In summary as shown in Table 1, methods on how each individual counselor promotes their well-being are arranged alongside with Norcross’ self-care strategies.

Table 1
*Norcross’ self-care strategies and specific methods used by all four participants to promote well-beings*

<table>
<thead>
<tr>
<th>Norcross’ self-care strategies</th>
<th>Methods used by participants to promote self-care</th>
</tr>
</thead>
</table>
| 2) Think strategies, as opposed to techniques or methods | • Plug into various sources (#1)  
 • Using other resources, e.g. exercise (#4) |
| 3) Begin with self-awareness and self-liberation | • Healthy sense of self (#1)  
 • Awareness of my own reactions (#2)  
 • Well-being (To be VS to do) (#2)  
 • Focus on here and now (#2)  
 • Pay attention to my dreams (#3) |
| 5) Employ stimulus control and counterconditioning when possible. | • Prioritization (#1)  
 • Delegation (#1)  
 • Finding quality time (#1)  
 • Saying “No” (or boundary setting) (#1)  
 • Make time for yourself (#1)  
 • Involve in activities outside work (#1)  
 • Nature watch (#3)  
 • Control the outcome through my own actions (#3)  
 • Taking control (#3)  
 • Do chores myself (#3)  
 • Personal time and space (#4) |
| 6) Emphasize the human element | • Being with people/family (#1)  
 • Relationship with others (#2)  
 • Talking with people (#3)  
 • Do not talk about counseling with friends (#4)  
 • Networking with other professionals (#4)  
 • Spend more time with family (#4)  
 • Social support (#4) |
| 8) Avoid wishful thinking and self-blame | • Know my limit (#1)  
 • Appreciate my limitation (#2)  
 • Appreciative attitude towards life (#3)  
 • Goals in life (#3)  
 • Realistic anticipation (#3) |
| 9) Diversify, diversify, diversify | • Religious/spirituality involvement (#1)  
 • Spiritual insights on self-transcendence (#4) |
Notice that other four categories on Norcross’ self-care strategies are not listed in the table above. They are: (1) Recognize the hazards of psychological practice, (4) Embrace multiple strategies traditionally associated with diverse theoretical orientations, (7) Seek personal therapy, and (10) Appreciate the rewards.

**Discussion**

The main purpose of this qualitative, explorative study is to identify effective self-care strategies used among Malaysian registered counselors in the Klang Valley. All four participants contributed by reporting how they took care of themselves both personally and professionally.

On awareness of self-care issues and strategies, all four participants were familiar with the common self-care methods. Three out of four participants shared the following concepts: (1) Self-care is essentially related to personal development, (2) Individual counselors have their own preferences of self-care strategies, (3) Self-care should be viewed holistically, (4) There are mainly five aspects in self-care. They are physical, mental, spiritual, social and environmental aspects, (5) Self-care strategies may change according to different stages of development in the profession.

The finding of this study supported most of the self-care strategies suggested by Norcross (2000). The self-care methods reportedly used by each participant were readily classified and fitted into the self-care categories. These identified self-care strategies employed among these four participants include: (2) Think strategies, as opposed to techniques or methods, (3) Begin with self-awareness and self-liberation, (5) Employ stimulus control and counter-conditioning when possible, (6) Emphasize the human element, (8) Avoid wishful thinking and self-blame, (9) Diversify, diversify, diversify, Additional category: Mind the body. All these self-care strategies discussed are within the scope detailed by Norcross (2000), and the added self-care category by Turner, Eicken, Castro, Edwards, Yokoyama and Tran, (2005). However, four categories on Norcross’ self-care strategies are not mentioned by the four participants, including: (1) Recognize the hazards of psychological practice, (4) Embrace multiple strategies traditionally associated with diverse theoretical orientations, (7) Seek personal therapy, and (10) Appreciate the rewards. A further study on the following topics: the influence of theoretical orientations on self-care strategies and seek personal therapy can be done.

Counselor self-care is the collective responsibility of educational programs, professional bodies, and the counselors themselves (Turner et al., 2005). It is difficult to outline self-care strategies without careful consideration on the personal
and professional development of counselors. Moreover, the concept of “tailor-made” self-care strategies rings true as each of the four participants emphasized on certain self-care aspects or methods which worked for them. In other words, self-care is personal and unique for each individual counselor. Therefore, the attempt to identify effective self-care strategies collectively may not represent the dynamics within practitioners to promote their health in various ways suitable for them.

On the other hand, spirituality development as one of the ways of caring for oneself is highly regarded by the majority of participants in this study. There might be several possible reasons for this phenomenon. One of which is experienced counselors in Malaysia had learned how to plug into various sources to rejuvenate themselves since the professional bodies here do not provide adequate support. Another reason could be that Asian counselors tend to focus more on spirituality and religious practices, hence would have already reenergized before needing psychotherapy. The findings of the study have their own limitations because the study was conducted based on four counselors’ participation. More studies are required to find out the detail of the self-care system among the counselors with the hope of enhancing the quality of counseling services now and future.

Counselors’ self-care is a relatively less explored topic in Malaysia. Self-care among Malaysian counselors is very important because they are easily burned out due to less supportive working environment and the nature of this profession. It is essential that counselors would educate themselves more on this topic and learn to cope with our particular occupational hazards with greater confidence and competence.

References


Filipino Parent-Adolescent Relationship Scale

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St. Paul, Quezon City, Manila

Abstract
The present study aims to develop a Parent-Adolescent Relationship Scale based on Steinberg and Silk's (2002) three dimensions of parent-adolescent relationship (Autonomy, Conflict, and Harmony). There were 757 who participated in this study. There are 416 (55%) females and 341 (45%) males. Their age ranges from 12 years old to 19 years old ($M=16.85$, $SD=1.87$). There were 120 items constructed by the researcher (38 items in the autonomy scale, 39 items in the conflict scale, and harmony scale has 43 items). Results showed that the scale has high internal consistency, with Cronbach's alpha of .89. The three factors when correlated showed significant correlation. Divergent validity was attained between conflict with autonomy ($r=-.12$) and harmony ($r=.38$). While convergent validity was attained between autonomy and harmony ($r=.48$). Confirmatory Factor Analysis showed that all of the items of the subscales have significant estimates. The three factor model of the parent-adolescent relationship scale also attained a good fit ($\chi^2=19937.41$; RMSEA=.07; AIC=28.05; SBC=29.56; and BCCVI=28.18)

Keywords: Parent-Adolescent Relationship, Autonomy, Conflict, and Harmony

Introduction

Parents have been dreading the time when their children will become teenagers. Who would have blame them, when all they would be seeing, hearing, and reading from widespread and erroneous popular culture of stereotypes is that adolescents are difficult, oppositional, and moody (Steinberg, 2001). Most parents fear that at this stage in their children’s life, their relationships with them will decline. Although, researchers claim that despite temporary decrease in positive affects and positive interchanges among parents and adolescents, children who have warm relationships with their parents during preadolescence are likely to remain close and connected with their parents, even though the frequency and quality of positive interactions are lessened (Steinberg, 2001; Steinberg & Silk, 2002; YMCA, 2000).

Researchers have looked into parent-adolescent relationship and its association to academic achievement and found that parent-adolescent conflict negatively predicted achievement (Dotterer, Hoffman, Crouter, & McHale, 2008). They have been studying parent-adolescent relationship and its connection to adolescent suicidal ideation, spirituality, and parental well-being (Spoon & Longo, 2012; Wheeler, Updegraff, &Crouter, 2011; Desrosiers, Kelley, & Miller, 2011; Connor &Rueeter, 2006; Bilgin, Cenkseven, &Satar, 2007). Perceptions of parent-adolescent relationships and its relationships to adolescent personality and adolescent externalizing problem behaviors are also studied (McGuie, Elkins, Walden, &Iacono, 2005; Kruger, Johnson, &Iacono, 2008; Denissen, van Aken,

As noticed in the different studies above, most of the researchers used several questionnaires to measure the three dimensions of parent-adolescent relationship. They usually adapt a subscale of the questionnaires or remove several items in a subscale they are using to measure one dimension. There is no existing instrument that can measure all three dimensions. The aim of the present study is to develop an instrument that will be able to measure the three dimensions of parent-adolescent relationship.

The factors of the instrument were based on Steinberg and Silk’s (2002) overarching dimensions of parent-adolescent relationship. The three dimensions are Autonomy, Conflict, and Harmony. Autonomy refers to behavioral autonomy it is the adolescent’s capacity to make independent decisions and follow through with them. This factor is characterized by adolescent disclosure and parental-autonomy granting. Conflict refers to the extent to which the parent-adolescent relationship is contentious and hostile. The factor is marked by hostility, contentiousness, nattering, bickering, and coercion between parents and adolescents. Harmony refers to the extent to which the parent-adolescent relationship is warm, involved, and emotionally close. The factor is characterized by show of affection, involvement, support, and emotional closeness.

Method

Participants

There are 757 adolescent-participants in this study. There are 416 (55%) females and 341 (45%) males. Their age ranges from 12 years old to 19 years old ($M=16.85$, $SD=1.87$). The respondents came from different schools, colleges, and universities in Manila, Philippines.
Instrument

The instrument was developed based on Steinberg and Silk’s (2002) three overarching dimensions of parent-adolescent relationship. There are three factors in the scale Autonomy, Conflict, and Harmony.

Autonomy refers to behavioral autonomy it is the adolescent’s capacity to make independent decisions and follow through with them. According to Steinberg and Silk (2002) adolescent’s early attempts to practice behavioral autonomy in the family often cause conflict between parents and adolescents. This factor is characterized by adolescent disclosure and parental autonomy granting. There are 38 items of behavioral autonomy in this scale (e.g. “My parents allow me to drink alcoholic beverages”; “My parents allow me to go out of town with my boyfriend/girlfriend”; “My parents allow me to go to bars/clubs.”)

Harmony refers to the extent to which the parent-adolescent relationship is warm, involved, and emotionally close (Steinberg & Silk, 2002). The factor is characterized by show of affection, involvement, support, and emotional closeness. There are 43 items of harmony in this scale (e.g. “I can tell my secrets to my parents.”; “My parents never fail to comfort and guide me.”; “I show affection with my parents by hugging, kissing and saying I love them.”)

Conflict refers to the extent to which the parent-adolescent relationship is contentious and hostile (Steinberg & Silk, 2002). The factor is marked by hostility, contentiousness, nattering, bickering, and coercion between parents and adolescents. Although, many believed that frequent angry fighting with parents are normal during adolescence, researchers have found that it is not normative during the adolescent stage (Steinberg, 2001). According to researchers, most arguments between teens and their parents are because of mundane issues of daily life such as chores, attire, and curfew (Montemayor, 1983; Steinberg, 1990). There are 39 items of conflict in this scale (e.g.”I’m angry with my parents”; “I ignore my parents when they reprimand me about texting”; “I frequently disobey my parents”).

The researcher gathered 40 psychology major students (16 to 17 years old) to identify the manifestations of the factors and eventually arrive with the items. Steinberg and Silk’s three overarching dimensions of parent-adolescent relationship were discussed with them. The factors are all defined and explained. They were later asked to identify the different manifestations of the factors. The following session they were tasked to write items that would measure each of the three factors. After writing the items, the items were categorized according to the factor it was suppose to measure. Content analyses of the items were done. Statements that are expressing the same thought were put together and an item was constructed to represent the theme. An appropriate response format was then chosen and directions for responding were developed. Three experts in the content of the instruments were asked to do an item review of the scale then instrument was reexamined and revise. The present form of the parent-adolescent relationship scale has 3 subscales: Autonomy, Conflict, and Harmony. There are 38 items of autonomy in this scale (e.g. “My parents allow me to clean and decorate my own room”; “My
parents know where I am when I’m not at home”; “My parents allow me to choose my hair style”). While there are 39 items of conflict in this scale (e.g. “I argue with my parents about simple things”; “I make faces whenever my parents scold me”; “I argue with my parents”). There are 43 items of harmony in this scale (e.g. “I can share my thoughts and feelings with my parents”; “My parents make me feel that I am loved”; “My parents support me financially, morally, and spiritually in all my activities”). A Likert scale of 1 to 4 (1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree) is the response format of the instrument.

**Procedure**

The researcher asked permission from school administrators of different universities if the students will be allowed to answer the PAR Scale being tested. Student assistants were trained to administer the instrument. They were taught how to administer the instrument, give directions to respondents on how to answer the instrument, and how to handle questions from respondents. The instrument was administered to respondents in groups. Before answering the items, the respondents were asked to rate the statements as truthfully and objectively as possible. They were reminded to read carefully the directions first and not to leave any items blank. The participants were also assured that their response will be kept confidential. They were afterwards thanked by the test administrators for their time and cooperation.

**Data Analysis**

Descriptive statistics like mean, standard deviation, skewness, and kurtosis were used to describe the data.

Pearson’s product moment correlation coefficient was used to show the relationship between the three factors of the scale. Convergent validity is indicated by positive correlations between factors, while divergent validity is indicated by negative correlations between factors.

Confirmatory Factor Analysis was conducted to test the three-factor structure of the parent-adolescent relationship scale. The model is adequate if the fit indices for the Chi-Square Statistic, was not significant and the Root Mean Square Error of Approximation (RMSEA) is close to .09.

Divergent validity was used to further establish the factor structure between conflict with the autonomy and harmony scales. Convergent validity was also used to established the factor structure between autonomy and harmony (Magno&Ouano, 2010).
Results

The means, standard deviation, kurtosis, and skewness were used to determine the participants’ responses on the measures used in the study. Results of Cronbach’s alpha for the three subscales and correlation coefficients of the three factors are also shown. The three factor model of the parent-adolescent relationship scale was tested to confirm its factor structure.

Table 1
*Descriptive Statistics of the Factors (N= 757)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent-adolescent</td>
<td>2.65</td>
<td>.25</td>
<td>.48</td>
<td>.69</td>
<td>.89</td>
</tr>
<tr>
<td>autonomy</td>
<td>2.89</td>
<td>.41</td>
<td>.28</td>
<td>.15</td>
<td>.89</td>
</tr>
<tr>
<td>Conflict</td>
<td>2.07</td>
<td>.5</td>
<td>.49</td>
<td>.10</td>
<td>.94</td>
</tr>
<tr>
<td>Harmony</td>
<td>3.01</td>
<td>.47</td>
<td>-.22</td>
<td>.08</td>
<td>.94</td>
</tr>
</tbody>
</table>

Results showed that high mean scores were obtained for the subscale harmony (M=3.01 and SD=.47). While the subscale conflict has the lowest mean (M=2.07 and SD=.5). Results also showed a Cronbach’s alpha of .89, indicating a very high internal consistency of the overall parent-adolescent relationship items. Cronbach’s alphas of .89, .94, and .94 are also showed for the subscales autonomy, conflict, and harmony, respectively.

Table 2
*Intercorrelations among the Factors of Parent-adolescent Relationship*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Autonomy</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Conflict</td>
<td>-.12*</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>3. Harmony</td>
<td>.48*</td>
<td>-.38*</td>
<td>---</td>
</tr>
</tbody>
</table>

*p<.05

Table 2 shows the correlation between the factors of parent-adolescent relationship. The correlation between autonomy, conflict, and harmony are all significant at *p<.05* level of significance. Among the factors significant negative correlations were obtain between conflict and autonomy (r=-.12), and conflict and harmony (r=-.38). This supports the divergent validity of the scales. While positive correlations were observed between autonomy and harmony (r=.48), which supports convergent validity.
Table 3

*Goodness of fit measures of the 3 models*

<table>
<thead>
<tr>
<th></th>
<th>1 Factor model</th>
<th>2 Factor Model</th>
<th>3 Factor Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>27094.61</td>
<td>26309.08</td>
<td>19937.41</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.11</td>
<td>0.1</td>
<td>0.07</td>
</tr>
<tr>
<td>Akaike Information Criterion</td>
<td>37.877</td>
<td>36.798</td>
<td>28.046</td>
</tr>
<tr>
<td>Schwarz's Bayesian Criterion</td>
<td>39.391</td>
<td>38.312</td>
<td>29.560</td>
</tr>
<tr>
<td>Browne-Cudeck Cross Validation Index</td>
<td>38.009</td>
<td>36.930</td>
<td>28.177</td>
</tr>
</tbody>
</table>

Table 3 shows the different measures of goodness of fit of the models. The three factor model of the parent-adolescent relationship scale was tested against a two factor model and a one factor model. In the two factor model the first 60 items were assigned to factor 1, while the last 60 items were assigned to factor 2. In testing for the one factor model, all 120 items were assigned to factor 1. Confirmatory Factor Analysis showed that the values of the chi square, RMSEA, Akaike Information Criterion, Schwarz’s Bayesian Criterion, and Browne-Cudeck Cross Validation Index indicates bad fit. In the three factor model, Confirmatory Factor Analysis showed that all items that were assigned to their specific factors were found to have adequate goodness of fit. The estimates and the values of the chi square, RMSEA, Akaike Information Criterion, Schwarz’s Bayesian Criterion, and Browne-Cudeck Cross Validation Index indicates a good fit.

Table 4

*Parameter Estimates and p-values of the Items per Factor*

<table>
<thead>
<tr>
<th>Factors</th>
<th>Parameter Estimates</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My parents let me choose my own career path/the course to take in college</td>
<td>0.26</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me choose my school for college</td>
<td>0.27</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to commute from school to my house</td>
<td>0.31</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me join to different activities in school</td>
<td>0.31</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to hang out with my friends</td>
<td>0.46</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents permits me to go to concerts of my favorite band or artist</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me choose the sport I like</td>
<td>0.36</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me shop clothes for myself</td>
<td>0.41</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to drink alcoholic beverages</td>
<td>0.64</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow to watch any movie I like</td>
<td>0.41</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents permit me to travel in far places alone</td>
<td>0.62</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to have a boyfriend/girlfriend</td>
<td>0.58</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to go out of town with my boyfriend/girlfriend</td>
<td>0.63</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me go on adventure trips.</td>
<td>0.50</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to clean and decorate my own room.</td>
<td>0.30</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me have my privacy.</td>
<td>0.35</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me sleep over with my friends.</td>
<td>0.53</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Cont. Table 4

<table>
<thead>
<tr>
<th>Item</th>
<th>Value1</th>
<th>Value2</th>
</tr>
</thead>
<tbody>
<tr>
<td>My parents monitor my educational activities</td>
<td>0.20</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to go to bars/clubs</td>
<td>0.62</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to drive our car</td>
<td>0.49</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to sleep late during weekends</td>
<td>0.33</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents text or call me every now and then</td>
<td>0.16</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents check my school status</td>
<td>0.15</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents put a tracker in my cell phone and in my car</td>
<td>0.16</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to express my own opinion</td>
<td>0.26</td>
<td>0.00</td>
</tr>
<tr>
<td>I am allowed to be friends with gays and lesbians</td>
<td>0.33</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to have my own pet</td>
<td>0.33</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to choose my own sexual preference</td>
<td>0.42</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents know where I am when I’m not home</td>
<td>0.23</td>
<td>0.00</td>
</tr>
<tr>
<td>In everything I do, my parents need to know it first</td>
<td>0.14</td>
<td>0.00</td>
</tr>
<tr>
<td>I can withdraw from my bank account</td>
<td>0.59</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents let me decide whether to go to church or not</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to choose my hairstyle</td>
<td>0.36</td>
<td>0.00</td>
</tr>
<tr>
<td>I live on my own because I want to be independent</td>
<td>0.36</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to have extreme sports like car racing and mountain climbing</td>
<td>0.47</td>
<td>0.00</td>
</tr>
<tr>
<td>I can negotiate with my parents the number of hours I can be out of the house</td>
<td>0.39</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents allow me to be separate from them for longer periods of time now</td>
<td>0.44</td>
<td>0.00</td>
</tr>
<tr>
<td>I am entitled to have an opinion towards family matters and decision making</td>
<td>0.27</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Conflict**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value1</th>
<th>Value2</th>
</tr>
</thead>
<tbody>
<tr>
<td>My parents are very strict.</td>
<td>0.23</td>
<td>0.00</td>
</tr>
<tr>
<td>I don’t talk to my parents a lot.</td>
<td>0.47</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents misunderstood me.</td>
<td>0.43</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents don’t trust me.</td>
<td>0.50</td>
<td>0.00</td>
</tr>
<tr>
<td>I answer back to my parents.</td>
<td>0.46</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents don’t have time for me.</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>I am not close with my parents.</td>
<td>0.55</td>
<td>0.00</td>
</tr>
<tr>
<td>I don’t spend quality time with my parents.</td>
<td>0.52</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents won’t allow me to have a piercing and tattoos</td>
<td>0.09</td>
<td>0.03</td>
</tr>
<tr>
<td>I argue with my parents about simple things.</td>
<td>0.49</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents get mad when I go home late</td>
<td>0.29</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents treat me as a 13 year old</td>
<td>0.34</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents know my face book and twitter passwords</td>
<td>0.46</td>
<td>0.00</td>
</tr>
<tr>
<td>I feel less important to my parents</td>
<td>0.60</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents hurt me physically whenever I did something wrong.</td>
<td>0.58</td>
<td>0.00</td>
</tr>
<tr>
<td>I don’t obey my parents when I think I’m right.</td>
<td>0.49</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents hurt me emotionally whenever I did something wrong.</td>
<td>0.54</td>
<td>0.00</td>
</tr>
<tr>
<td>I make faces whenever my parents scold me</td>
<td>0.47</td>
<td>0.00</td>
</tr>
<tr>
<td>I’m angry with my parents</td>
<td>0.60</td>
<td>0.00</td>
</tr>
<tr>
<td>Statement</td>
<td>Score</td>
<td>Significance</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------</td>
<td>--------------</td>
</tr>
<tr>
<td>When my parents want me to do something, I ignore them</td>
<td>0.54</td>
<td>0.00</td>
</tr>
<tr>
<td>I enjoy being with my delinquent friends and having my parents mad at me</td>
<td>0.60</td>
<td>0.00</td>
</tr>
<tr>
<td>I threaten my mom/dad that I will move out of the house</td>
<td>0.61</td>
<td>0.00</td>
</tr>
<tr>
<td>I ignore my parents when they reprimand me about texting</td>
<td>0.63</td>
<td>0.00</td>
</tr>
<tr>
<td>I frequently disobey my parents</td>
<td>0.59</td>
<td>0.00</td>
</tr>
<tr>
<td>My parent get angry whenever I play computer games and surf the net</td>
<td>0.38</td>
<td>0.00</td>
</tr>
<tr>
<td>I argue with my mother/father</td>
<td>0.57</td>
<td>0.00</td>
</tr>
<tr>
<td>I get upset whenever they scold me even though I know it’s my fault</td>
<td>0.41</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents compare my attitude and intellect to my other siblings.</td>
<td>0.43</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents insult or mock my low performance in school</td>
<td>0.54</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I usually do not talk to each other.</td>
<td>0.55</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents dislike what I post on facebook.</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I hurt each other physically.</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>My Parents always check my mobile inbox.</td>
<td>0.41</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents nag me</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>I lie to my parents</td>
<td>0.29</td>
<td>0.00</td>
</tr>
<tr>
<td>I thought of running away from home</td>
<td>0.51</td>
<td>0.00</td>
</tr>
<tr>
<td>My mom always shouts at me</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents scold me in front of many people.</td>
<td>0.58</td>
<td>0.00</td>
</tr>
<tr>
<td>I often shout at my parents in the middle of arguments.</td>
<td>0.59</td>
<td>0.00</td>
</tr>
<tr>
<td>Harmony</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My parents show their affection even in public</td>
<td>0.40</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I go to mall or somewhere else during family day</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I attend different gatherings together</td>
<td>0.42</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I still watch movies together</td>
<td>0.51</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I eat together every time we are all at home</td>
<td>0.47</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I have common interest and hobbies like reading books</td>
<td>0.41</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I bond through sports</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I travel together in far places</td>
<td>0.44</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents and I go to church every Sunday</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td>I can share my thoughts and feelings with my parents.</td>
<td>0.50</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents respect my decision.</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents understand me.</td>
<td>0.48</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents love me.</td>
<td>0.42</td>
<td>0.00</td>
</tr>
<tr>
<td>I can tell my secrets to my parents.</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents share their life experiences with me.</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents make me feel that I am loved.</td>
<td>0.49</td>
<td>0.00</td>
</tr>
<tr>
<td>If I have problems, I tell it to my parents.</td>
<td>0.52</td>
<td>0.00</td>
</tr>
<tr>
<td>I help my parents with the household chores.</td>
<td>0.42</td>
<td>0.00</td>
</tr>
<tr>
<td>We say “I love you” to each other.</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>My parents befriend my friends.</td>
<td>0.41</td>
<td>0.00</td>
</tr>
</tbody>
</table>
In the three factor model of the parent-adolescent relationship scale, the CFA results showed that all 38 items of the autonomy subscale have significant estimates \( p<.05 \). In the conflict subscale all 39 items have significant estimates \( p<.05 \), while all 43 items of the harmony subscales also have significant estimates \( p<.05 \). CFA results confirm the divergent validity between conflict with autonomy \( r=-.12 \) and harmony \( r=-.38 \). Convergent validity between autonomy and harmony \( r=.48 \).

**Discussion**

The present study aim to develop a parent-adolescent relationship scale based on Steinberg and Silk’s three dimensions of parent-adolescent relationship (Autonomy, Conflict, and Harmony).

Results of the descriptive statistics showed that the mean score of Harmony subscale \( M=3.01, \ SD=.47 \) is higher than the means of Autonomy \( M=2.89, \ SD=.41 \) and Conflict \( M=2.07, \ SD=.5 \). It implies that for the adolescent participants they perceived their relationship with their parents as harmonious. Researchers claim
that despite temporary decrease in positive affects and positive interchanges among parents and adolescents, children who have warm relationships with their parents during preadolescence are likely to remain close and connected with their parents, even though the frequency and quality of positive interactions are lessen (Steinberg, 2001; Steinberg & Silk, 2002; YMCA, 2000). Most Filipino families are warm, emotionally involved and have close family ties. Autonomy meanscore are higher than Conflict mean scores. Filipino children are taught to respect their parents and most believe that the parents are always thinking of what is best for them. The items of this scale reflect that, most often than not they allow their parents to make decisions or consult their parents in their decision making. There are also adolescents who hate confrontations they would rather go with the flow, follow what their parents wanted than cause conflict. As most adolescents would rather avoid conflict, some have adopted the “to keep the peace attitude” as implied by the low mean score of the respondents on the conflict subscale.

Cronbach’s alphas were computed to identify the internal consistency of the scale as a whole and the subscales. The whole scale has a Cronbach’s alpha of .89, which implies high internal consistency. The subscales Autonomy, Conflict, and Harmony has a Cronbach’s alpha of .89, .94, and .94 respectively. The individual subscales showed high internal consistency. This implies that all the item contents were manifesting a single construct.

Intercorrelation results showed that all three factors are significantly correlated. Conflict is negatively related to Autonomy ($r = -.12, p<.05$) and Harmony ($r = -.38, p<.05$). This implies divergence of the factors within the parent-adolescent relationship scales. Autonomy and harmony ($r = .48, p<.05$) are significantly related. These were consistent in the CFA results were the same divergent and convergent validity emerged. The divergent validity between conflict and harmony implies that for Filipino families, the warmer and closer family ties are, the lesser the hostility, the bickering and the nattering between parents and adolescents. While the divergence in the conflict and autonomy implies, that for most Filipino families higher autonomy granted to the adolescent lesser conflict between parents and adolescents arises. Some parents view the autonomy granted to the adolescent as controlled freedom were they compare the child to a kite attached to a roll of string. The kite can soar in the skies freely but no matter where it goes it is still attach to the string. The string actually dictates how high or how low the kite can fly. The convergence between autonomy and harmony implies higher autonomy granted to child the more harmonious the relationship between parents and adolescents.

Three models were tested to assess the best factor structure for the instrument and the three factors model proved to be the best fit. This showed that the PAR scale is not unidimensional and it is best viewed with factors as proposed.

In the Autonomy subscale all 38 items have significant estimates. This factor is characterized by adolescent disclosure and parental autonomy granting (e.g. “My parents permit me to travel in far places alone”; “I can withdraw from my bank account”; “My parents let me sleep over with my friends.”). While in the Conflict subscale all 39 items have significant estimates. The factor is marked by hostility,
contentiousness, nattering, bickering, and coercion between parents and adolescents. Researchers claimed that most of the arguments parents and adolescent engage are usually arguments of small things, like texting, chatting, surfing the net, and even the facebook wall post of the adolescent (e.g. “I ignore my parents when they reprimand me about texting”). Teen-agers are very sensitive even if it is their own fault they don’t want to be reprimanded or scolded in front of other people specially, in front of their peers. Parents should learn to hold their temper and should always be patient when it comes to dealing with their adolescent children (e.g. “My parents scold me in front of many people.”; “I often shout at my parents in the middle of arguments.”). In the Harmony scale all 43 items have estimates that are significant. The factor is characterized by show of affection, involvement, support, and emotional closeness. There are Filipino adolescents who avoid confrontation and conflict (e.g. “I avoid incidents that may result conflict with my parents.”). Hence, most of the time they just go with what their parents want for them. While there are parent-child relationship are open and understanding that they can talk like old friends (e.g. “I can talk to my parents as if they are my friends”). Filipino adolescents who have a warm and supportive relationship with their parents often find themselves consulting their parents whenever they have decisions to make (e.g. “I consult my parents in decision-making”).

The results of the present study can help: Parents in understanding their adolescent children better; the school counselors so that they can help not only the parents in understanding their children but also help the adolescent child understand his or her parents; the teachers to help them have a better understanding of adolescent students since they act as parents to their students in school.

References


YMCA. (2000). *Telephone survey conducted for the White House Conference on Teenagers*. Chicago: YMCA.

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