



Psychological and Social Determinants of Yoga Practice: An Application of the Theory of Planned Behavior

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Abstract

Objective: To identify and learn the psychological and social factors that help determine the reasons why individuals practice yoga or have difficulty in practicing yoga in the United States.

Method: Seven hundred individuals who practice yoga at least once a week by attending a yoga class and/or practicing yoga on their own were surveyed in this study.

Results: Findings showed that yoga practitioners placed a high value was placed on advantages of yoga practice (improved relaxation, flexibility, balance, and strength) along with a strong belief that facilitating factors (having the resources of time, money, and convenient yoga class times) help individuals overcome challenges to practice regularly (not having enough time, money, or convenience).

Conclusion: Individuals that regularly practice yoga more than once a week believe they have enough facilitators to overcome the barriers to practice along with strong social support and that the advantages exceed the disadvantages of practicing yoga.

Keywords

Yoga; Hot yoga; Theory of planned behavior; Health behavior theory; Integrative health; Wellness; Fitness; Relaxation

Introduction

Understanding why individuals engage in health behaviors has been a topic that has been studied for decades dating back to psychologists who studied behavior to the development of health behavior theories in the mid-20th century [1,2]. Application of these theories to understand the underlying psychological and social determinants of behavior have become part of the foundation of understanding public health, health promotion, and health education [2]. The practice of yoga in the United States has been growing rapidly in the past five decades, however, understanding what determines if individual practices yoga has only been examined in limited number of research studies [3]. Yoga has been researched and utilized for many benefits including those for children, athletes, cancer patients, senior citizens, and the general population [4-9].

Ajzen and Fishbein [1,2] have collaborated to develop health behavior theories to explain and predict individual's behavioral

intention and behavior. The Theory of Planned Behavior (TPB) attempts to explain behavior by measuring individuals' attitude, subjective norm, perceived behavioral control, and behavioral intention. Pilot studies often involve researchers conducting interviews that elicit salient responses related to the advantages/disadvantages of the behavior (attitude), approval/disapproval from others (subjective norm), and factors that make practicing the behavior easier or more difficult (perceived behavioral control). Next, a follow-up study is conducted which includes a quantitative study to confirm the salient responses from participants related to the health behavior being studied.

Previous research applying TPB has identified that perceived behavioral control is the strongest predictor of intention to attend yoga classes and the second strongest predictor is attitude. Facilitating factors that increase the likelihood of attending yoga classes were having enough time in their schedule, having enough money to attend classes, having convenient class times, having a convenient location, and always feeling better after attending a yoga class. Common reported advantages of attending yoga classes were feeling relaxed, improving flexibility, and improving balance & strength. Subjective norm has shown to not be statistically significant predictor of individuals' attending yoga classes and this is believed to be related to individuals who practice yoga (yogis) being independent of the opinion of others [3].

Yoga is characterized and mental, physical, and spiritual activity that comprises a variety of styles of practice [10]. Research, particularly focusing on the relationship of yoga practice and health outcomes has demonstrated that yoga is effective at improving a variety of physical and mental health conditions [11,12]. Studies have found that yoga alleviates the symptoms of and can reduce levels of anxiety and mood disorders such as depression [13]. Furthermore, yoga practice can improve balance, flexibility, sleep quality, and self-reported fitness/well-being [14] and relieve the symptoms of a variety of chronic health conditions such as lower back pain, arthritis, and cancer [11,12]. Yoga is an activity that can be adapted to a wide-range of populations, including populations with different physical or mental abilities and health status. In addition the risk of injury resulting from yoga practice is generally very low [15-18].

Therefore, the practice of yoga should be promoted widely as an activity that most people can safely participate in to gain a benefit. To best promote participation in yoga it is important to understand the motivating factors for individuals to engage in such behavior [3]. Using theoretical frameworks such as the TPB to understand what contributes to, or prevents people from engaging in yoga practice can increase our understanding of how to engage populations in practice and how to reduce barriers that may reduce participation. The following study aims to understand the factors that contribute to an individual's practice in yoga in terms of attitudes, beliefs, social norms and the motivation to comply with such norms, and external factors that increase or decrease the likelihood of engaging in the activity of yoga.

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Method

Participants

Seven hundred individuals were surveyed about their yoga practice. Most of the sample, 60% (n=420), was female with 39.6% (n=277) male, and three respondents identified as other/transgender. All participants must have practiced yoga within the last three months, lived in the United States, and been at least 18 years of age. Participants were recruited by Qualtrics and provided a \$10 incentive in the form of a gift card for all participants.

Measures

Seven questions were developed to inquire are the psychological and social determinants of practicing yoga using TPB. Individuals were asked to name benefits, advantages, and disadvantages of practicing yoga. Second, individuals were asked what makes it easier to practice yoga and what makes it more difficult. Last, individuals were asked who supports/approves their yoga practice and who does not support (makes it more difficult) to practice yoga. These measures were identified from both a pilot study and previous studies conducted using elicitation interviews and TPB.

Data collection

Data was collected with the aid of a research subject recruiter (Qualtrics) that identified all participants who had practiced yoga within the past three months and paid them an incentive valued at \$10. Participants were emailed a web-based survey using Qualtrics and participants completed a 63-item survey.

Data analysis

Data was analyzed using SPSS 22.0 and including primarily descriptive analyses including frequencies, percentages, means, medians, and standard deviations.

Discussion of Results

Table 1 shows the advantages and disadvantages of practicing yoga among the 700 respondents. The most commonly reported benefits were feeling relaxed (79.4%, n=556), improved flexibility (71.1%, n =498), improved fitness (59.7%, n=418), and clearer thinking (46.6%, n=326). The most common negative outcomes or disadvantages of practicing yoga were injury (35.7%, n=25), anxiety (20.0%, n=140), insecurity (50.7%, n=355), and Eastern philosophy/religion affiliation (11.0%, n=77). Anxiety was described as not being comfortable or confident in the yoga class because of social anxiety or lack of confidence in yoga practice. Insecurity was described as lacking confidence in their body image or appearance and/or also their skills as a yoga practitioner. Eastern philosophy and religion affiliation were associated with yoga's roots in Hinduism along with strong associations with Buddhism and Taoism, which were in conflict with individuals who were traditional/orthodox believers of Christianity, Judaism, or Islam.

Table 2 describes the salient referents who approve or disapprove of participants practicing yoga. Supportive referents included spouse/significant other (60.0%, n=420), family (53.0%, n =371), friends (49.1%, n=344), and co-workers/employer (10.0%, n=70). Unsupportive referents included the same referent groups, but differing percentages: Spouse/significant other (12.6%, n=88), family (17.0%, n=119), friends (16.4%, n=115), and co-workers/employer (21.9%, n=153). Spouses/significant others, family, and friends were

much more likely to support the practice of yoga for participants, whereas disapproval was twice as high as approval for co-workers/employer.

Table 3 identifies the salient circumstances that make practicing yoga easier or more difficult. The facilitating factors that make practicing yoga easier were having enough time (66.3%, n=251), having convenient class times (50.4%, n=353), having a convenient location of the yoga studio (43.9%, n=307), and having enough money to pay for yoga classes/practice (39.1%, n=251).

Participants who had high levels of perceived behavioral control and believed they could overcome any barriers to practicing yoga on regular basis (at least one class each week) reported higher levels of both attendance to yoga classes and yoga practice at home. Individuals who felt anxious and/or insecure about attending yoga classes had concerns with their appearance/body image and/or skills related to practicing specific yoga poses or asanas. The facilitating factors that improved the frequency of yoga practice including the belief that yoga would always improve the way that participants feel.

Findings from this study confirm previous studies that the two most common advantages or benefits of practicing yoga are feeling more relaxed and improved flexibility [3]. This study identified two additional self-reported benefits of yoga, improved fitness and

Table 1: Advantages and disadvantages of yoga.

Advantages	n	%
Feeling Relaxed	556	79.4%
Improved Flexibility	498	71.1%
Improved Fitness	418	59.7%
Clearer Thinking	326	46.6%
Disadvantages	n	%
Insecurity	355	50.7%
Injuries	250	35.7%
Anxiety	140	20.0%
Eastern Philosophy/Religion Affiliation	77	11.0%

Table 2: Approval and disapproval of practicing yoga.

Approval	n	%
Spouse/Significant Other	420	60.0%
Family	371	53.0%
Friends	344	49.1%
Co-workers/employer	70	10.0%
Disapproval	n	%
Co-workers/employer	153	21.9%
Family	119	17.0%
Friends	115	16.4%
Spouse/significant other	88	12.6%

Table 3: Facilitators and barriers of practicing yoga.

Facilitator	n	%
Having enough time	464	66.3%
Convenient class times	353	50.4%
Convenient location of yoga studio	307	43.9%
Having enough money	251	39.1%
Barrier	n	%
Not having enough time	371	53.0%
Not having enough money	254	36.3%
Not having convenient class times	245	35.0%
Not having a convenient location	213	30.4%

improved clarity of thinking. Previous research has identified yoga as an activity that can be associated with weight-loss and improved focus [3]. Previous research identified only injuries as a common disadvantage or negative outcome of practicing yoga [3]. However, this study identified a new group of negative experiences that individuals have regarding practicing yoga and attending yoga classes and they are related to insecurity and anxiety. Individuals reported not being confident in their ability to perform yoga poses and also concerns regarding their own fitness level and/or body image. Last, this study identified yoga's history and association with Eastern philosophies and religions as a negative outcome or disadvantage of practicing yoga. Respondents shared this belief regarding the yoga's history with Eastern philosophies and religions had strong beliefs in Abrahamic religions, specifically Christianity with either orthodox, conservative, or evangelical associations. Individuals who were concerned that yoga may be in conflict with their religion shared that they may be concerned that practicing yoga may be associated with the worship of another deity or supernatural force.

Previous research has identified that subjective norm is not a significant predictor of yoga practice because individuals that practice yoga are not concerned about the approval or opinion of others regarding their yoga practice [3]. Individuals are motivated to practice yoga regularly when the advantages are greater than the disadvantages and when the facilitators are greater than the barriers to practice yoga. Future study could track the actual daily and weekly of yoga practitioners over time and use regression analyses to predict the behavior (standard analysis for TPB) yoga practice from salient outcomes, referents, and circumstances related to practicing yoga.

Though it is difficult to determine whether the results of this study are generalizable to all populations to practice yoga or might potentially practice yoga, we have captured a large, random sample of adults aged 18 and over who practice yoga in the United States. This study has outlined important constructs central to individual motivations that facilitate or deter people from practicing yoga. As yoga is a relatively safe physical activity, with reported physical, mental, and spiritual health benefits amongst various populations the information found in this study can be used to encourage yoga participation by focusing on strong areas of individual motivation and reducing barriers to practice in future interventions aiming to increase yoga participation.

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