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The Role of Mind-body Awareness in the Outcomes of Complementary and Alternative
Medicine (CAM)

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Abstract

Introduction: Mind-body awareness is often viewed as an outcome of using complementary and alternative medicine (CAM). Emerging evidence suggests that mind-body awareness may be an intermediate outcome that contributes to CAM-related outcomes. The current study aimed to test a model of mind-body awareness as an intermediate outcome of CAM use via provider autonomy support that facilitates quality of life and health behaviour changes.

Methods: Undergraduate students (N=243, M age=23.5, 84% female) screened for current CAM use, completed an online survey including questions about their CAM use, perceived outcomes from use of CAM, a measure of CAM provider autonomy support, and a new 8-item measure of Mind-body Awareness (MBA).

Results: Bivariate analyses confirmed that those with high MBA had higher scores on positive CAM-related health behaviour (diet, weight loss, exercise) and quality of life (sleep quality, mood, energy levels, concentration) changes. Path analysis controlling for demographics and health status tested the proposed model of CAM use predicting provider autonomy support, and in turn MBA and two CAM-related outcomes. The model fit well to the data, CFI = 0.94, TLI = 0.91, RMSEA = .03, supporting the hypotheses that CAM use is associated with higher MBA via increased autonomy support, and MBA contributes to quality of life and health behaviour changes.

Discussion/Conclusions: Findings extend previous research on mind-body awareness by linking it to CAM-related quality of life and behavioural outcomes in a sample of young adult CAM consumers, and further suggest a route through which provider support may enhance CAM outcomes.

KEYWORDS: complementary and alternative medicine; body awareness; autonomy support; provider support; health behaviour change

Introduction

Body awareness is a multifaceted concept that has been defined as attending to, and identifying, the inner sensations and overall state of the body and its changes in response to emotional and environmental shifts [1]. A number of complementary and alternative medicine modalities (CAM) such as yoga and massage, focus on tuning into one's body and learning to better respond to the body's needs [2], and making changes based on this awareness. In this respect, CAM use may help promote adaptive awareness of the body, and facilitate an interactive relationship between the body and mind. To highlight the interactive dynamics of the mind-body relationship, and to differentiate this adaptive form of body awareness from other less adaptive forms that reflect focusing and over-attending to unpleasant symptoms such as pain [3], we use the term *mind-body awareness*.

The benefits of CAM use for mind-body awareness have been demonstrated in both qualitative and quantitative studies. In a qualitative study of CAM practitioners and their patients, engagement in mind-body CAM practices was viewed as a means of resuming the disrupted process of self-organization and wholeness [4]. In a comparative analysis of yoga practitioners versus aerobic exercisers and non-yoga/aerobic practitioners, the yoga practitioners reported higher levels of mind-body awareness compared to the other two groups [2]. Similar results were found in a prospective study of the effects of a yoga immersion program, with more frequent yoga practice associated with higher levels of mind-body awareness over the course of the program [5].

In addition to highlighting CAM use as an antecedent of mind-body awareness, research suggests that increased mind-body awareness may be an intermediate outcome of CAM use that can have positive effects on meaningful health outcomes. For example, one study found that after

a 24-week body awareness therapy program, patients with IBS reported significant decreases in psychological distress and gastrointestinal symptoms, and improved biomarkers of stress, as well as normalised body tension [6]. In a study of people with non-specific musculoskeletal disorders, body awareness therapy yielded larger effects over time for reducing distress and pain compared to conventional treatments [7]. Although this research examined specific programs designed to raise mind-body awareness over a period of weeks, many CAM are used or delivered multiple instances over time. To the extent that CAM use can increase mind-body awareness, CAM use may have similar effects via increased mind-body awareness for improving physical and psychological health-related outcomes. There is at least one study that supports this proposition. In a study of CAM consumers, increased mind-body awareness due to CAM was associated with self-reported positive dietary changes [8].

Despite this promising research suggesting links between CAM use, mind-body awareness, and health outcomes, there has been little research investigating the factors that might explain why CAM use may facilitate the development and enhancement of mind-body awareness. However, theory and evidence suggest that provider support may be a key factor. In a qualitative analysis of CAM consumers and health behaviour change, empowerment and encouragement from CAM providers were noted as helping to facilitate both increased body awareness and making important health behaviour changes [8]. In a quantitative analysis of this same data, provider support was associated with symptom relief of the CAM consumer's primary presenting health problem [9].

Although there are different ways of conceptualising provider support, in the context of CAM use provider support has been previously viewed [8] from the lens of Self-Determination Theory (SDT)[10]. According to SDT, intentional behaviour can be viewed as varying along a

continuum from being controlled or motivated by external forces, to being autonomous and intrinsically motivated or self-determined [10]. The development of this self-determination can be facilitated by others when they act in ways that support rather than suppress personal autonomy. Provider autonomy support therefore can be described as the quality of support from a health-care provider that facilitates acting in more self-determined and intrinsically motivated ways with respect to one's health. For example, perceived autonomy support from health-care practitioners has been linked to better coping, motivation, dietary behaviours, and glycemic control in diabetes patients [11, 12]. With respect to mind-body awareness, SDT suggests that provider autonomy support could potentially include encouragement to tune into or listen to one's own body and its needs and acting in accordance with those needs. From this perspective, it is possible that receiving autonomy support from CAM providers may facilitate the development of mind-body awareness.

The aim of the current study is to further examine the role of mind-body awareness in CAM outcomes, and specifically to test whether provider autonomy support was associated with mind-body awareness, and subsequent changes in health-related outcomes. With respect to CAM outcomes, we selected outcomes consistent with a whole systems perspective [13]. This framework suggests that a holistic sense of wellness that results from CAM can be understood in terms of four outcome domains: 1) physical outcomes including physical functioning and symptoms such as pain and fatigue; 2) psychological outcomes, including mental functioning and well-being; 3) social outcomes, including social support and health-care utilisation; 4) spiritual outcomes, including hope and relaxation. However, qualitative work has also identified a fifth domain of CAM outcomes, health behavioural outcomes [14], that can have important implications for overall health and well-being.

Given evidence suggesting that mind-body awareness is linked to changes in physical, psychological, and health behaviour outcomes [6-8], we chose to examine specific outcomes within these CAM outcome domains. Physical and psychological outcomes from CAM use are closely linked, both from a whole systems research perspective [13], and from a quality of life perspective [15]. Accordingly, we tested the associations between autonomy support and changes in quality of life outcomes (sleep, mood, energy levels, concentration), and health behaviour outcomes (diet changes, exercise changes, weight changes), and the role of mind-body awareness in explaining these associations. Much of the research on the effects of mind-body awareness has used clinical or chronic illness patients. Given that a significant proportion of young adults are using CAM and CAM providers [16], we tested our model of mind-body awareness as an intermediate outcome of CAM use via provider autonomy support in a sample of university students to gather preliminary support. Based on the evidence presented, we hypothesised that perceived provider autonomy support would be significantly associated with higher levels mind-body awareness, which in turn would be associated with self-reported positive changes in both health behaviour outcomes as a result of CAM use, and psychological and physical symptoms.

Methods

Participants and Procedure

Following clearance from the university research ethics board, a sample of undergraduate students were recruited to participate in a study on provider-based CAM use. Only participants who answered “yes” to the screening question regarding current use of CAM delivered by a provider or practitioner were permitted to participate. Student participants were recruited from a mid-sized university in Southwestern Ontario, Canada through notices placed on a university

participant pool web page available only to university students. The study notices provided a link to a dedicated web page which directed participants to the online survey housed on a secure university server. Participants indicated their consent to participate in the study by clicking an “I agree” button on the online consent form. From those who met the inclusion criteria, 243 provided consent to participate in the study. Student participants were given course credit as an incentive for their participation.

Measures

The sample completed an online survey that included demographic questions, information and their CAM use in the previous six months, and measures of autonomy support, mind-body awareness, physical and psychological symptoms, and health behaviour changes due to CAM use.

CAM Use. Participants answered questions about the different CAM modalities they had used in the past six months by indicating “yes” or “no” in response to a checklist of eight different CAM providers: chiropractor, homeopath, naturopath, massage therapist, acupuncturist, reflexologist, Reiki practitioner, or other CAM provider. They also indicated who of these practitioners they considered to be their primary CAM provider.

CAM provider autonomy support. The Health-Care Climate Questionnaire (HCCQ) [17] was used to measure perceived CAM provider autonomy support. This 15-item measure assesses perceptions of the extent to which a particular health-care provider is autonomy supportive. The scale authors recommend substituting the word “physician” with the type of “provider” referenced. Accordingly, the word physician was changed to CAM provider throughout the scale. Items such as “My CAM provider conveys confidence in my ability to make changes” and “I feel a lot of trust in my CAM provider” are scored on a 7-point scale ranging from 1 (*Strongly*

disagree) to 7 (*Strongly agree*). Two items are reversed scored before calculating the mean of the scale, with higher scores reflecting greater perceptions of CAM provider autonomy support. The HCCQ has demonstrated good internal consistency in previous research [17], and good internal consistency in the current study (Cronbach's alpha = .97).

Mind-body awareness. The Mind-body Awareness (MBA) scale was developed in a previous study with items based on qualitative responses from 36 focus group participants concerning the benefits they received from CAM treatments [14]. The items were further refined using expert input and cognitive interviews and then piloted tested on a sample of 216 CAM consumers. The MBA scale includes eight items representing different components of mind-body awareness, such as “How aware are you of where you hold tension in your body?,” “How aware are you of your breathing patterns?,” and “How well are you able to see the connection between your actions or habits and how you feel?”(see Appendix A). Response options range from 1 (Extremely) to 5 (Not at all). Items were reverse-coded and averaged to compute an overall score with higher values representing greater mind-body awareness. The scale demonstrated good internal consistency reliability in the previous study [8], as well as in the current study (Cronbach's alpha=0.75).

Quality of life and health behaviour change outcomes from CAM use. Participants were asked if they had experienced any improvement or decline in each of the following areas after treatment from their primary CAM provider: (a) sleep, (b) mood, (c) energy level, and (d) concentration or focus. Response options ranged from 1 (“Much better than before) to 5 (“Much worse than before”). Items were reverse-coded, so higher values indicated more improvement. An overall quality of life change score was computed as the mean of the four items.

In addition, participants were asked whether they had changed specific health behaviours as a result of going to their CAM provider, including (a) improved diet, (b) achieved a healthier weight, and (c) increased exercise. Responses included “yes,” “no,” and “not applicable.” In cases where the behaviour change was applicable, responses were coded as 1 (changed the behaviour) vs. 0 (did not change the behaviour). The total number of behaviours changed was also computed.

Data Analyses

To identify factors associated with mind-body awareness, we fit a linear regression model of MBA scale scores by autonomy support scale scores, demographic characteristics (age, gender, and chronic medical condition), and CAM use (years of CAM use and whether CAM is used instead of or in addition to conventional medicine). Next, to examine the relationship between mind-body awareness and positive changes, we compared outcomes among participants with high vs. low mind-body awareness scores, defining the groups according to a median split. T-tests were used to compare mean quality of life changes across the two MBA groups and chi-square tests were used to compare the number in each group making health behaviour changes.

Finally, we tested our conceptual model of the pathway from CAM use to positive outcomes with autonomy support and MBA as intervening variables (Figure 1), using path analysis. We began by testing a path model with summary variables for the overall number of quality of life changes and overall number of health behaviour changes as the positive outcomes. Based on those findings, we then fit a second path model, breaking out the changes into the individual components (e.g., sleep, mood, diet, exercise). To have an acceptable model fit, the comparative fit index (CFI) and Tucker-Lewis Index (TLI) for the path model should have

values of 0.90 or higher and the Root Mean Square Error of Approximation (RMSEA) should be less than 0.08.

Descriptive statistics and regression analyses were conducted in SAS version 9.3 and path analyses were conducted in Mplus version 8. The distribution for the autonomy support scale was skewed and a log transformation was applied to approximate normality before including the scores in the regression and path analyses.

Results

Descriptive results

A total of 243 current CAM users (M age = 23.5, 84% female) completed the online survey. About half ($N=123$; 51%) of the student sample reported having a chronic condition. Forty-one percent ($N=98$) have used CAM for 3 or more years and around a quarter ($N=57$; 24%) reported using CAM instead of conventional medicine. In terms of CAM use, massage therapy and chiropractic were the most frequently used provider-based modalities, with acupuncture, naturopathy, homeopathy, and other CAM (yoga, iridology, and traditional Chinese medicine) being used less frequently (see Figure 2).

Relationship of MBA to model variables

Based on the regression model, demographic and CAM factors were not significantly related to MBA scores ($p > 0.05$) (Table 2). However, after controlling for other factors, there was a positive relationship between autonomy support and MBA scores (coefficient (SE)=0.41 (0.19), $p = 0.034$); those receiving more autonomy support reported having greater mind-body awareness.

In the bivariate analyses, participants with high (vs. low) mind-body awareness scores had significantly (or marginally significantly) higher mean scores for each of the quality changes

except for sleep: mood ($p = 0.051$), energy level ($p = 0.002$), and focus/concentration ($p=0.005$) (Table 3). They were also more likely to make diet ($p = 0.059$), weight ($p = 0.023$), and exercise ($p = 0.019$) changes.

Path Analyses

The path model including overall quality of life changes and health behaviour changes fit well (CFI=0.94, TLI=0.91, RMSEA=0.03) (Figure 3). History of CAM use was positively related to autonomy support; longer-term users of CAM had greater autonomy support than those who had used CAM less than one year ($p < 0.001$). More autonomy support was significantly associated with greater mind-body awareness ($p = 0.005$), and MBA was in turn linked to more positive changes in quality of life ($p < 0.001$) and health behaviours ($p = 0.002$).

The results for the model examining individual types of changes were similar (Figure 4). The model fit well (CFI=0.97, TLI=0.95, RMSEA=0.04). In addition to the relationship between autonomy support and a longer history of CAM use found in the previous model, in this model using CAM instead of rather than in addition to conventional medicine was also associated with greater autonomy support ($p = 0.017$). Autonomy support was positively associated with mind-body awareness ($p < 0.001$). Participants with greater mind-body awareness were more likely to experience positive changes in physical (sleep, energy level) and psychological (mood, focus/concentration) components of quality of life, as well as each of the positive health behaviour changes (diet, weight, and exercise) ($p < 0.01$)

Discussion

The aim of the current study was to test a model of mind-body awareness as an intermediate outcome of CAM provider autonomy support that facilitates improvements in self-reported symptoms and health behaviour changes. In the regression analysis, CAM autonomy

support was the only significant predictor of mind-body-awareness, after accounting for the contributions of demographics, health status, and CAM use variables. Consistent with our hypotheses, the path analysis found that greater mind-body awareness explained the associations of CAM provider autonomy support with reported quality of life changes and health behaviour changes as a result of CAM. An analysis of the components of quality of life and health behaviour changes revealed that mind-body awareness was significantly linked to improvements in each of the four quality of life dimensions (sleep, mood, energy level, and focus/concentration), and each of the three health behaviour improvements (diet, weight, and exercise). These effects were found after accounting for the contributions of demographics, health status, and CAM use variables, including length of CAM use.

Characteristics of our sample of young adult CAM users were very similar to those of CAM users found in research with general adult populations, as they were predominantly female and used CAM to supplement rather than replace conventional health care [18-21]. The majority had also used CAM for 3 or more years. Although the sample was younger, about half of the sample reported having a chronic health condition. This is also consistent with findings that CAM users tend to have a greater number of chronic health conditions than non-users [18, 22], and that those with a longer history of CAM use tend to have a greater number of chronic health issues [18]. Given these points, our sample could be considered similar to typical provider-based CAM users, aside from their young age, and thus our findings might be expected to hold for other adult populations. Nonetheless, further research with a more diverse adult population is needed to confirm this speculation.

The test of the model found that history of CAM use was a significant contributor to CAM autonomy support. Those who had used CAM for longer periods of time reported greater

perceptions of autonomy support from their CAM provider. This finding could be explained by the delivery of provider-based CAM as an ongoing therapeutic treatment over time to deal with health issues. With repeated practice and experience with CAM, individuals can develop a more stable relationship with a particular CAM provider, but also potentially with CAM providers more generally. Indeed trust in CAM providers has been proposed as having a reciprocal and mutually reinforcing relationship with CAM use, promoting greater commitment to CAM, and thus continued use over time [23]. As trust is an integral component of autonomy support [10], it seems reasonable that greater CAM use, and specifically greater commitment to using CAM (as evidenced by a longer history of CAM use), would be linked to higher autonomy support.

An important finding from the current study was that CAM provider autonomy support explained significant variance in mind-body awareness, which in turn was linked to improvements in quality of life and health behaviours as a results of CAM use. This finding provides new insights into possible ways to cultivate and foster greater mind-body awareness in the context of CAM use, and the associated downstream benefits. Consistent with Self-Determination Theory [10], when CAM providers are supportive and empowering, rather than controlling, their clients may be therefore be more likely to more fully engage with the CAM practice. Indeed, in one quantitative study of body awareness, participants noted that more fully engaging with CAM practice facilitated a shift in awareness to focusing more one movement, breath, and bodily sensations, which led to learning to accept and work with the limitations of their body [4].

Our results also provide further support for the potential role of mind-body awareness in a number of important health-related outcomes related to CAM use. We found that those with higher levels of mind-body awareness reported significant improvements across all of the quality

of life (sleep, mood, energy levels, and focus/concentration) and health behaviour (diet, weight, and exercise) outcomes measured. Importantly, these outcomes were measured with respect to their primary CAM used, that is, participants perceived as having improvement in these outcomes as a result of CAM use with their primary CAM provider, rather than simply as general measures. Other research has examined the effects of body awareness with respect to decreases in negative symptoms among medical populations [6, 7]. Our findings further suggest that among relatively healthy young adults, mind-body awareness may also be beneficial for improving important health behaviours such as diet and exercise, as well as for enhancing sleep, concentration, mood, and energy levels. Given that these markers of quality of life and health behaviours are often compromised among university students [24, 25], and can be mutually reinforcing when compromised [26], our findings provide good preliminary evidence to warrant further investigation into how CAM use via autonomy support and mind-body-awareness may be beneficial for improving the health and well-being of college and university students.

The types of CAM used in this young adult sample were predominantly those which could be classified as mind-body practices. In this respect it is not surprising that mind-body awareness was found to be an intermediate outcome of CAM use. However, research into the effects of CAM use on mind-body awareness has predominantly focused on yoga, a CAM practice which specifically highlights the importance of becoming aware of one's breathing and movement [2, 5]. Our findings extend this research by providing supportive evidence that use of other mind-body practices such as massage therapy may also contribute to the development of greater mind-body awareness. Indeed, there has been at least one qualitative study that similarly noted that participants in a massage therapy programme reported changes consonant with increased body awareness [27].

Limitations

The current findings should be considered in the context of several limitations. The sample used for this study consisted of students who are younger than a general adult population and therefore may not be representative of CAM users in the general population. The cross-sectional design of the study precludes drawing any firm conclusions about the causal directions among the variables proposed by the model. Despite this, our model is consistent with Self-Determination Theory [10], and prior research demonstrating that CAM use facilitates the development of mind-body awareness [5], that CAM provider encouragement is linked to mind-body awareness and health behaviour improvements [8, 9, 12], and that mind-body awareness facilitates improvements in physical and mental health symptoms and health behaviours [6, 7]. Nonetheless, longitudinal research testing the proposed model over time would be well-positioned to confirm the order of variables suggested by the current findings.

Conclusions

The current study tested and found support for a model of mind-body awareness as an intermediate outcome of CAM provider autonomy support that facilitates improvements in quality of life and health behaviour changes in a sample of university students. These findings extend previous research on mind-body awareness by linking it to CAM-related symptom and behavioural outcomes, and further suggests mind-body awareness as a route through which CAM autonomy support may enhance CAM outcomes.

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Appendix A: Mind-Body Awareness Scale

	EXTREMELY ▼	VERY ▼	SOMEWHAT ▼	A LITTLE ▼	NOT AT ALL ▼
1. How aware are you of your body in general?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. How aware are you of where you hold tension in your body?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. How well are you able to release tension in your body?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. How much do you notice how your emotions affect your body?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. How aware are you of your breathing patterns?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
6. How well are you able to breathe in a relaxed way?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
7. How well are you able to see the connection between your actions or habits and how you feel?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃
8. How well are you able to change your actions and responses to improve how you feel?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

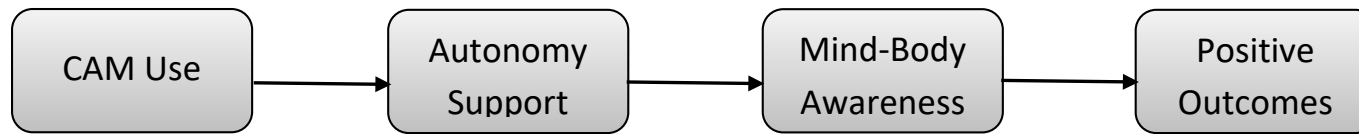


Figure 1. Conceptual Model of Pathway from Complementary and Alternative Medicine (CAM) Use to Positive Outcomes

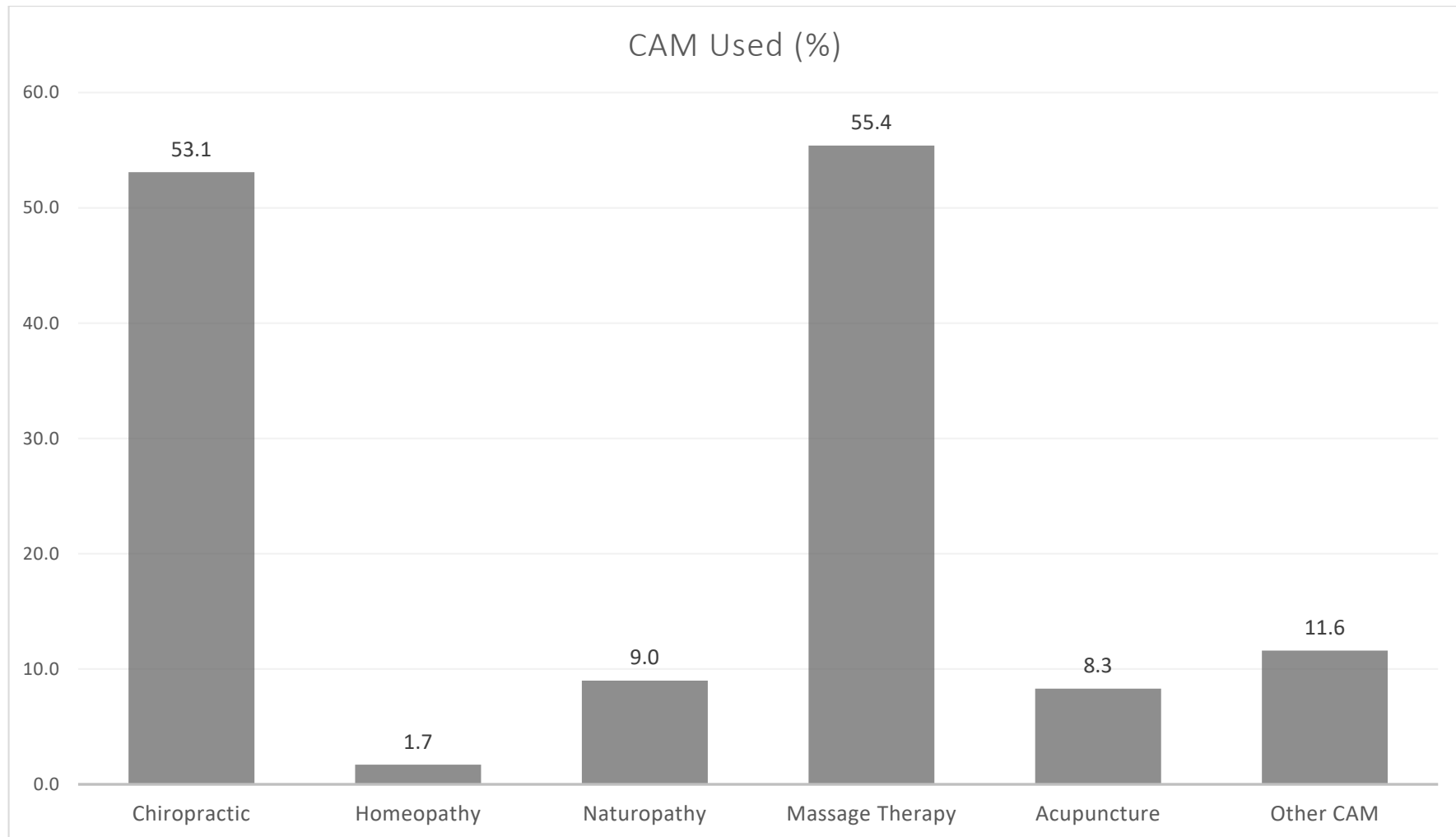


Figure 2: Percentages of different provider-based complementary and alternative medicine (CAM) used by participants.

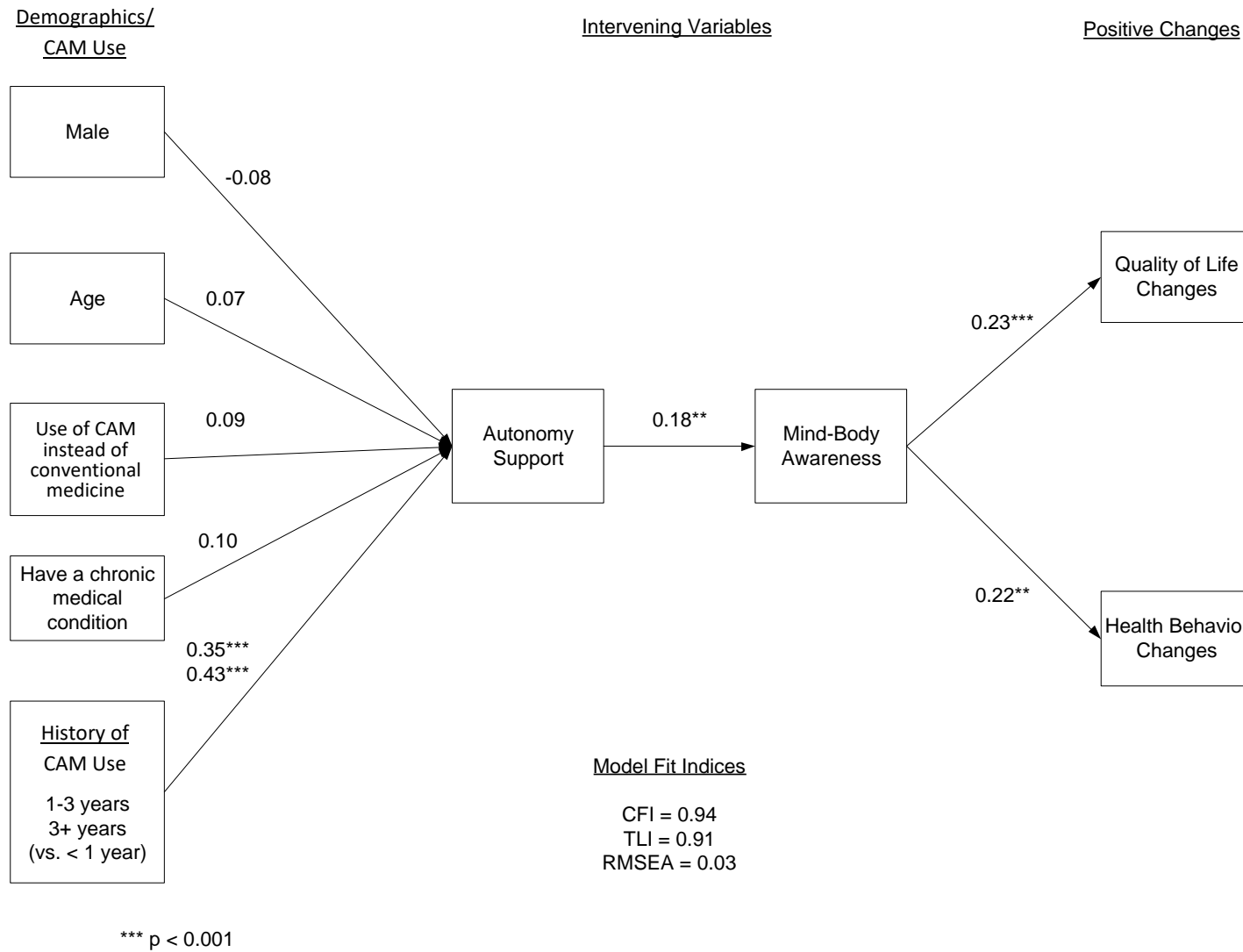
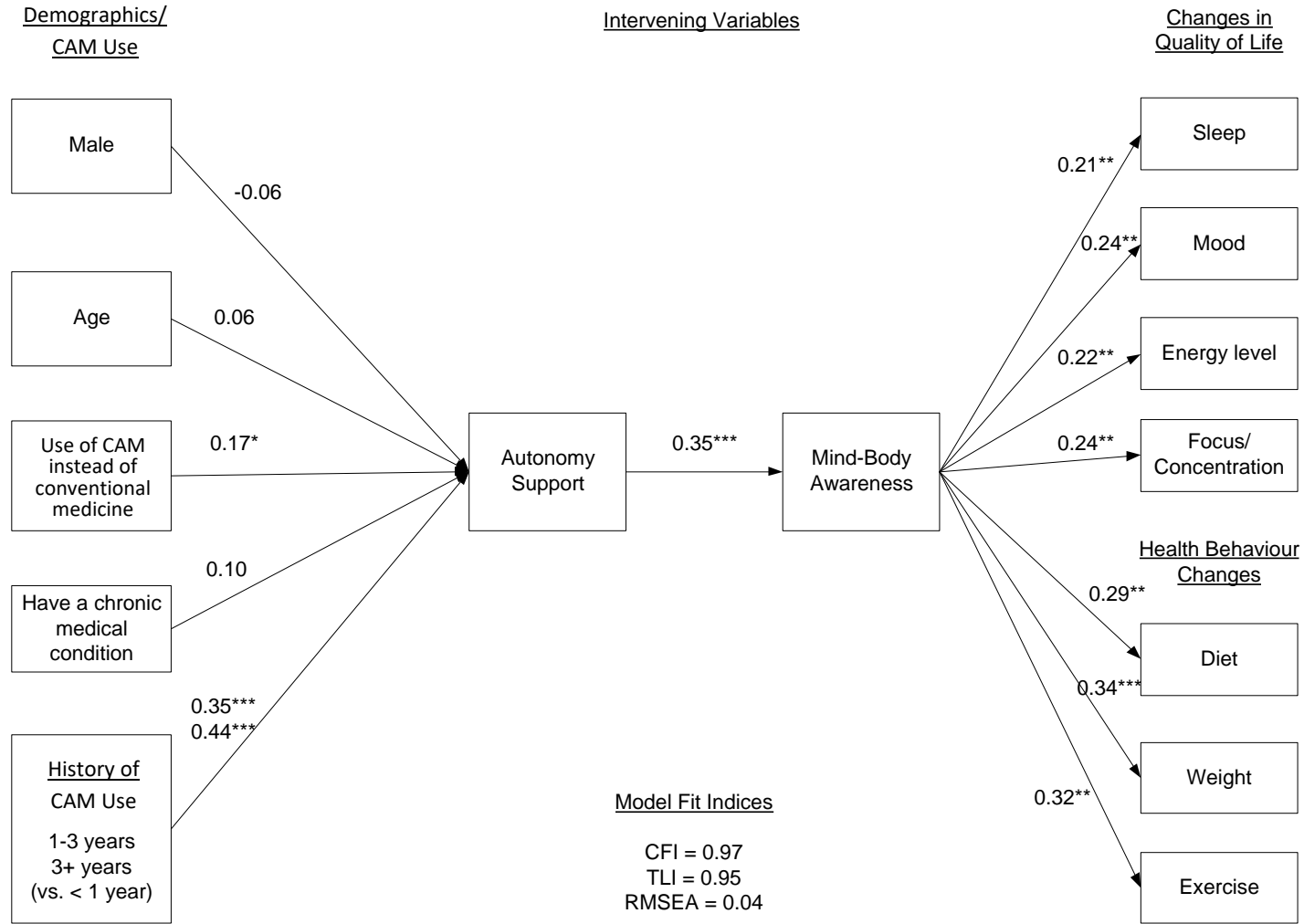


Figure 3. Path Model of Overall Changes in Quality of Life and Health Behaviour Among Complementary and Alternative Medicine (CAM) Users



* p < 0.05, ** p < 0.01, *** p < 0.001

Figure 4. Path Model of Changes in Individual Components of Quality of Life and Health Behaviour Among Complementary and Alternative Medicine (CAM) Users

Table 1. Demographic Characteristics, CAM Use, and Quality of Life and Health Behaviour Changes

Variable	N (%)
Overall	243 (100)
Gender	
Male	38 (16)
Female	204 (84)
Age...mean (SD)	23.46 (6.58)
Have a chronic medical condition	
Yes	123 (51)
No	119 (49)
Use CAM to treat health problems	
Instead of conventional medicine	57 (24)
In addition to conventional medicine	180 (76)
History of CAM use	
< 1 year	77 (32)
1-<3 years	65 (27)
3+ years	98 (41)
Autonomy Support...mean (SD)	5.42 (1.29)
Mind-body awareness...mean (SD)	3.44 (0.56)
Quality of Life Changes...mean (SD)	
Sleep	3.56 (0.72)
Mood	3.67 (0.75)
Energy level	3.67 (0.72)
Focus/concentration	3.58 (0.76)
Health Behaviour Changes...N (%)	
Diet	67 (43)
Weight	46 (33)
Exercise	92 (51)

Note: Percentages are computed out of the number of participants with data for the applicable variable.

Table 2. Regression Model of Mind-Body Awareness Scores

Variable	Mind-Body Awareness		
	Mean (SD)	Coeff. (SE)	p-value
Gender			
Male	3.39 (0.58)	0.00 (0.10)	0.986
Female	3.44 (0.55)	REF	
Age	--	0.00 (0.01)	0.960
Have a chronic medical condition			
Yes	3.46 (0.53)	0.01 (0.08)	0.914
No	3.41 (0.59)	REF	
Use CAM to treat health problems			
Instead of conventional medicine	3.56 (0.54)	0.15 (0.09)	0.098
In addition to conventional medicine	3.41 (0.54)	REF	
History of CAM use			
3+ years	3.48 (0.59)	0.01 (0.10)	0.916
1-<3 years	3.45 (0.44)	-0.04 (0.10)	0.675
< 1 year	3.38 (0.60)	REF	
Autonomy support	--	0.41 (0.19)	0.034

REF=reference category

Table 3. Quality of Life and Health Behaviour Changes by Level of Mind-Body Awareness

Variable	Mind-Body Awareness		
	High (N=122)	Low (N=121)	p-value
Quality of Life Changes...mean (SD)			
Sleep	3.64 (0.77)	3.49 (0.67)	0.115
Mood	3.77 (0.76)	3.57 (0.72)	0.051
Energy Level	3.82 (0.76)	3.52 (0.66)	0.002
Focus/Concentration	3.73 (0.78)	3.44 (0.72)	0.005
Health Behaviour Changes...N (%)			
Diet			
Yes	37 (51)	30 (36)	0.059
No	36 (49)	54 (64)	
Weight			
Yes	27 (43)	19 (25)	0.023
No	36 (57)	58 (75)	
Exercise			
Yes	51 (61)	41 (43)	0.019
No	33 (39)	54 (57)	

Note: Percentages for health behaviour changes are computed out of the participants for whom the change was applicable.