2010

Analysis of the Complementary, Alternative and Integrative Medicine Attitude Questionnaire (CAIMAQ)

Companion Report to *Medical Student Attitudes Toward Complementary, Alternative and Integrative Medicine*

This report is based on the results of a national survey of medical student attitudes toward complementary, alternative and integrative medicine. The survey is described in the manuscript, *Medical Student Attitudes Toward Complementary, Alternative and Integrative Medicine* published by the journal Evidence-based Complementary and Alternative Medicine. This companion report contains analyses that could not be published in the main manuscript due to space constraints.

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CONFIRMATORY FACTOR ANALYSIS (CFA)

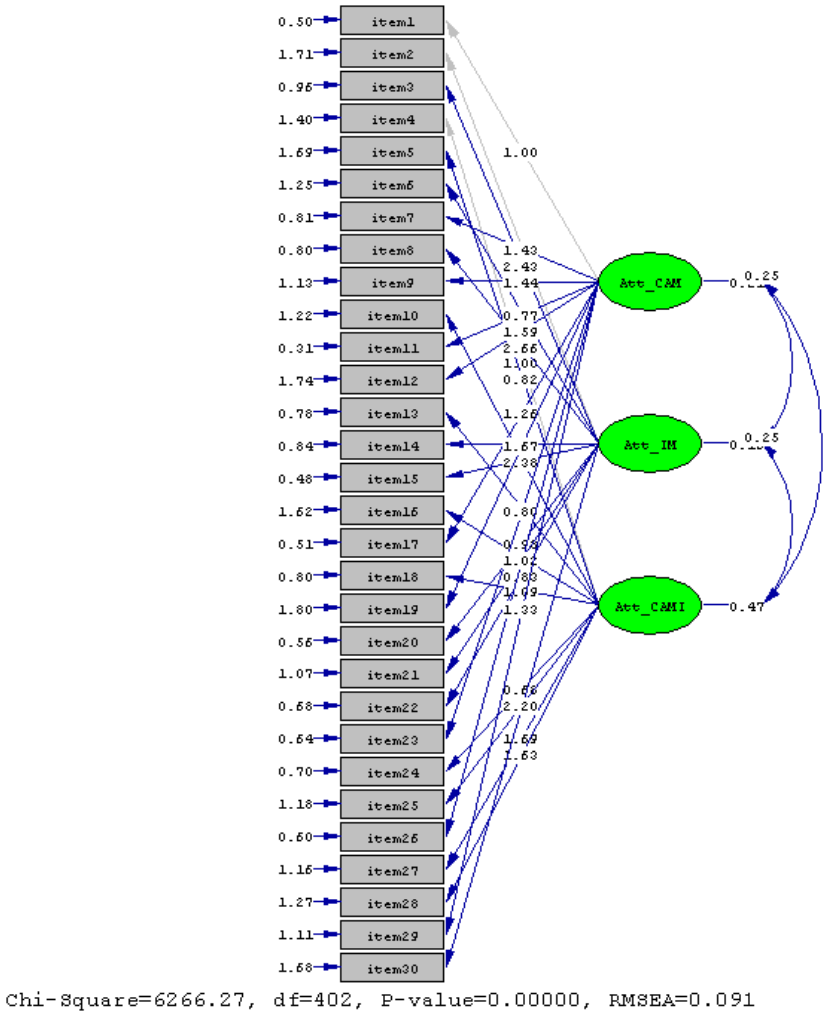
A postulated three and four factor model was tested via confirmatory factor analysis. Data was initially screened in SPSS v. 15.0.1 and then transferred as a tab delimited file to PRELIS v. 2.54 (1996), the preprocessor for LISREL v.8.54, to be used for the CFA (du Toit and du Toit, 2001) and SIMPLIS (Jöreskog and Sörbom, 1993). Given that all of the $k = 30$ variables in the postulated model are measured at the ordinal (ordered categorical) level the caveat in using maximum likelihood (ML) is that the multivariate normality assumption would not be met (West, Finch, & Curran, 1995), and indeed that was the case.

Multiple methods of analysis were employed to examine the CAIMAQ data. The first method, which may be employed when variables are measured at the ordinal level, was to use the weighted least squares (WLS) estimator for the polychoric correlation (PM) and asymptotic covariance matrix (AC). This capitalizes on information from the fourth moments (i.e., kurtosis). However, evidence suggests that this class of asymptotically distributed free estimators (ADF) may require substantial samples sizes (i.e., more than 1000) to aid convergence and proper solutions, especially when models become more complex (Nevitt & Hancock, 1994), and there is evidence that this becomes particularly problematic with a substantive number of indicators (e.g., $p > 25$ variables). Because the multivariate normality assumption was not met for this dataset, the Satorra-Bentler scaled chi-square statistic developed by Bentler and colleagues (e.g., Chou, Bentler, & Satorra, 1991) was also used, which calculates standard errors under non-normality (i.e., a scaled test statistic with robust standard errors), contingent on the asymptotic covariance matrix being provided (Jöreskog, Sörbom, du Toit, & du Toit, 2001). This option is examined as a basis of comparison to the ML/CM result. Moreover, there is some research examining the behavior of various estimators given the number of response categories (e.g., Dolan, 1994) and it has been noted that with a substantive number of categories (i.e., > 5) the "normal theory estimators perform quite well even with ordered categorical and moderately skewed/kurtotic variables, at least when the sample size is not small" (Muthén & Kaplan, 1985).

In an effort to be as comprehensive as possible (Boomsma, 2000), the following indices and fit statistics are reported for the confirmatory factor analysis (CFA): minimum fit function chi-square (χ^2) (as well as the Satorra-Bentler (SB) scaled chi-square when invoking the asymptotic covariance matrix with the covariance matrix), *p*-value, degrees of freedom (df), Root Mean Square Error of Approximation (RMSEA), Nonnormed Fit Index (NNFI), Comparative Fit Index (CFI), and Standardized Root Mean Squared Residual (SRMR). Even though Hu and Bentler (1999) vary on criteria for ascertaining acceptable fit (e.g., CFI = .95, RMSEA = .05, etc.), Marsh and colleagues (2004) offer evidence that their "more stringent cutoff values" may be more appropriate for "testing statistical significance than evaluating goodness-of-fit." The CAIMAQ analysis also takes into account a recent issue of Personality and Individual Differences (Barrett, 2007) dedicated to this assessment (and controversies of model fit) when assessing model fit (i.e., evaluating sample size issues, residuals, etc.). In addition, information-theoretic indices such as the Akaike's Information Criterion (AIC) served as useful guides for model selection, whether the models were nested or non-nested (Burnham & Anderson, 1998). Because lower values of the AIC as parameter constraints suggest a better model, the model AIC is reported as well. Even though modification indices (MI) may suggest inclusion or deletion of alternative paths (e.g., correlated residuals, etc.) and will be briefly reviewed, a comparison of

alternative models (3 factor vs. 4 factor model) is the primary focus for model testing. The SIMPLIS language for LISREL is used for model testing (Jöreskog & Sörbom, 1993).

Total sample size for this study was $n = 1770$; however, listwise deletion (LD) for the $k = 30$ items (based on coding the response "don't know" as missing data) resulted in a 40 percent loss of cases and produced an analyzable sample size of $n = 1062$. The missing data across items ranged from 1 to 355 (item 28). Given the prominent advances made in missing data techniques (Schafer & Graham, 2002), particularly in likelihood and multiple imputation (MI) techniques (Harel & Zhou, 2007), efforts were made to employ such techniques so as to maximize the sample size. Little and Rubin (1987) influenced many of the strides made in MI. They expounded upon the assumptions associated with the use of likelihood techniques such as the mechanism of missingness for such techniques (e.g., must be at least Missing at Random (MAR)), multivariate normality, etc. (Allison, 2000; Leite & Bertvas, 2004). However, limited work has been done on the use of MI with ordered categorical variables (i.e., ordinal), which is the type of scaling used for the variables in this analysis. In one of the few studies that examined the use of MI with ordinal variables, Leite and Bertvas (2004) found that "multiple imputation is robust to violations of both continuity and normality. This supports the assertion by Schafer (1997) that multiple imputation assuming the normal model works well even with ordered categorical data" (Leite & Bertva, 2004, p. 24). Thus, using PRELIS 2.53, the preprocessor of LISREL (Jöreskog & Sörbom, 1993), the MI option was used to incorporate the EM algorithm and the method of generating random draws from probability distributions via Markov chains (Du Toit & Du Toit, 2001, p. 387).



The above graphic shows the 3-factor model tested via confirmatory factor analysis (CFA). The significant chi-square indicates the model does not fit the data (although it is frequently claimed that as *n* increases the probability of rejecting a true null model increases; however, this is a contented idea on SEMNET, the listserv dedicated to SEM). Moreover, the RMSEA of .091 and the SRMR of .068 are somewhat high (although there is no absolute cutoff, RMSEA and SRMR values of approximately < .05 are preferred). Although the resultant incremental fit indices indicate acceptable fit (NNFI = .935 and CFI = .940), the GIF is relatively low (GFI = .809).

Though it is difficult to tell from a variance/covariance matrix where the troubles lie, when invoking the LISREL command line for a completely standardized solution (akin to correlations) the correlations between the latent constructs are very high (e.g., Att_IM and Att_CAMI= .919) which may point to some severe collinearity of the latent constructs.

Besides examination of global fit statistics, model problems (ill-fit) may be diagnosed by examining the standardized residuals at the local level. There are many standardized residuals > |3|, with a partial listing of the positive standardized residuals > 10 as follows:

Residual for Item 30 and Item 25:	10.107
Residual for Item 23 and Item 22:	11.336
Residual for Item 14 and Item 13:	11.386
Residual for Item 21 and Item 20:	12.523
Residual for Item 28 and Item 27:	16.490
Residual for Item 21 and Item 14:	18.351
Residual for Item 07 and Item 05:	20.677

Moreover, though modifying the model based on modification indices becomes a data-driven exercise, using an arbitrary value for the Lagrange multiplier > 100, the following indices indicate reduction in chi-square if (1) items are to load on a different latent construct (note that four of the modification indices suggest having indicators free to load on Att_CAM) and/or (2) residuals between manifest indicators are free to vary. The problem with incorporating correlated residuals is that theory must substantiate the respecification of the model.

The Modification Indices Suggest to Add the Path to from

		Decrease in Chi-Square	New Estimate
Item 13	Att_CAM	230.8	1.66
Item 20	Att_CAM	221.0	1.81
Item 13	Att_IM	148.2	2.76
Item 30	Att_CAMI	129.1	2.24
Item 27	Att_CAM	124.0	-1.61
Item 22	Att_CAM	115.1	1.43

The Modification Indices Suggest to Add an Error Covariance

		Between and Decrease in Chi-Square	New Estimate
Item 7	Item 5	384.7	0.57
Item 21	Item 14	336.8	0.43
Item 28	Item 27	271.9	0.55
Item 21	Item 20	156.8	0.24
Item 23	Item 22	107.2	0.17

Many of the indicators had explained variance (r^2) $\leq$ .218, with four of the lower items loading on Core_IM.

For the four factor model that includes a two item construct titled "Attitudes Towards Energy Based CAIM Therapies", the significant chi-square indicates the model still does not fit the data well, though there was small improvement for all the fit statistics and a reduction in the chi-square (i.e., RMSEA =.088, SRMR = .065, NNFI = .940 and CFI = .945). Given that the difference in the minimum fit function chi-square statistic (between nested models) is chi-square distributed, when comparing the 4 vs. 3 factor model preliminary support for the four factor model is obtained with the following significant result: $\chi^2_{diff}(3) = 339.17$, $p < .05$ (though this

may still be a comparison of two misspecified models). Also, note the AIC was also lower for the four factor model (AIC = 6392.27) when compared the three factor model (AIC = 6052.38).

Some evidence for improvement in model fit (at the local level) is the increase in the variance explained for the items (27 & 28) that load on the fourth construct for the four factor model (see model/item comparisons below):

Three factor model	
item27 = 1.692*Att_CAMI, Errorvar.= 1.156, R^2 = **0.537**	
(0.0835)	(0.0835)
20.271	20.271
item28 = 1.631*Att_CAMI, Errorvar.= 1.269, R^2 = **0.495**	
(0.0821)	(0.0475)
19.881	26.699

Four factor model	
item27 = 1.000*Att_ene, Errorvar.= 0.687, R^2 = **0.725**	
(0.0452)	
15.196	
item28 = 0.941*Att_ene, Errorvar.= 0.912, R^2 = **0.637**	
(0.0279)	(0.0279)
33.785	33.785

Further examination still reveals problems when taking a localize focus with the correlations between the latent constructs being rather high (e.g., Att_IM and Att_CAMI= .965) and there are still many standardized residuals and modification indices with relatively large values. Though sample size is marginal (given the large number of variables) for using polychoric correlation matric (PM) and asymptotic covariance matrix (AC) with weighed least squares (WLS) when declaring all the variables as ordinal, we see in the following table (Models 3 & 4) a similar pattern results. The same holds with using the variance/covariance matrix and asymptotic covariance matrix with maximum likelihood, thus obtaining the robust standard errors and Satorra-Bentler Scaled Chi-Square (Models 5 & 6).

To summarize the confirmatory factor analysis, after comparing the hypothesized three vs. four factor structure for the CAIMAQ, preliminary evidence indicated a slightly better fit for the four-factor structure, though ill-fit was evidenced by the global (e.g., SRMR), exact (significant chi-square), and local (e.g., standardized residuals) fit statistics.

Summary of model fit—3 and 4 factor model

	χ^2	p	df	RMSEA	AIC	NNFI	CFI	GFI	SRMR
Model 1--Three factor (CM with ML)	4685.62	< .05	402	0.091	6392.27	0.935	0.940	0.809	0.0680
Model 2--Four factor (CM with ML)	4346.45	< .05	399	0.088	6052.38	0.940	0.945	0.818	0.0653
Model 3--Three factor (PM and AC with WLS)	2682.67	< .05	402	0.057	2808.67	0.872	0.982	0.963	0.274
Model 4--Four factor (PM and AC with WLS)	2562.76	< .05	399	0.055	2694.77	0.878	0.888	0.965	0.260
Model 5--Three factor (CM and AC with ML)	4978.41 (SB)	< .05	402	0.080	5104.41	0.935	0.940	0.809	0.0680
Model 6--Four factor (CM and AC with ML)	4694.81 (SB)	< .05	399	0.078	4826.81	0.940	0.945	0.818	0.0653

*$p < 0.05$; n = 1770

Note:
RMSEA = Root Mean Square Error of Approximation
AIC= Akaike's Information Criterion
NNFI= Nonnormed Fit Index
CFI= Comparative Fit Index
GFI= Goodness of Fit Index
SRMR=Standardized Root Mean Square Residual
ML = maximum likelihood
WLS = weighted least squares
CM = covariance matrix
PM = polychoric correlation matrix;
AC = asymptotic covariance matrix
SB = Satorra-Bentler Scaled Chi-Square

EXPLORATORY FACTOR ANALYSIS (EFA)

Although an exploratory factor analytic approach (EFA) to testing factorial structures generally precedes a confirmatory approach (CFA), an exploratory factor analysis using Promax rotation and principal components extraction was conducted on the n = 1770 imputed data given the ambiguous result of the CFA.

With Promax rotation a power (*k*) is applied to the loadings to increase the probability of obtaining simple structure (Thompson, 2004). The default for SPSS v. 15.01 is $k = 4$ (e.g., loadings for an item that are 0.6 and 0.3 [2:1 ratio] are raised to a power of 4 so the ratio = 0.1296/0.008 = 16.2:1). The value $k = 4$ is generally recommended as an acceptable starting value (Gorsuch, 1983) and was used in this analysis.

The rotated pattern matrix (using the Kaiser Criterion $\lambda > 1.0$ cutoff for factor retention) revealed a five component solution (bolded values in the table below indicate the highest loading for a given item). There were quite a few items that even though postulated (per the CFA) to load on a given construct actually loaded with items from other theorized constructs. This finding to some extent confirms the modification indices for the correlated residuals (as well as alternative construct → indicator paths) from the CFA. This five component solution (of which PCA has as an aim the maximization of explained variance) explains 51.38 percent of the variation, which is not particularly high. Also, there were 9 communalities (h^2) < .45 (communalities signify the proportion of explained variance for the specific item across all obtained components). The same pattern emerged when principal axis factoring (PAF) was used as mode of extraction (this analyzes only common/shared variance; loadings are inevitably lower for PAF than PCA). The same pattern also was obtained for the Promax rotation when varying the power of *k* from 2 to 6.

	Promax Rotation: Loadings from Pattern Matrix (and communalities: h^2)					
Item #	**Component 1**	**Component 2**	**Component 3**	**Component 4**	**Component 5**	**h^2**
Item 1	0.147	0.140	**0.433**	-0.159	0.148	0.403
Item 2	0.071	0.007	-0.265	**0.463**	0.257	0.252
Item 3	**0.667**	0.053	0.005	-0.068	0.143	0.554
Item 4	**0.757**	-0.039	-0.181	-0.190	0.122	0.474
Item 5	-0.046	-0.142	**0.869**	0.015	0.011	0.636
Item 6	**0.553**	-0.141	0.242	-0.072	0.048	0.388
Item 7	0.011	0.034	**0.848**	-0.130	0.051	0.717
Item 8	**0.696**	0.032	0.076	-0.031	0.102	0.620
Item 9	-0.020	-0.113	0.119	0.144	**0.722**	0.534
Item 10	**0.764**	-0.040	0.031	0.036	-0.063	0.569
Item 11	0.119	0.307	**0.391**	-0.205	0.059	0.415
Item 12	0.025	0.040	-0.058	**0.657**	0.175	0.481
Item 13	0.104	**0.345**	0.187	0.154	0.129	0.465
Item 14	-0.099	**0.622**	0.149	0.263	-0.144	0.554
Item 15	**0.678**	0.149	0.039	-0.012	0.081	0.665
Item 16	**0.637**	0.042	0.054	0.081	-0.188	0.446
Item 17	-0.067	0.047	0.214	0.131	**0.632**	0.575
Item 18	**0.339**	0.150	0.207	0.162	0.020	0.452
Item 19	0.016	0.075	0.018	**0.586**	0.163	0.449
Item 20	-0.097	**0.561**	0.144	0.011	0.162	0.483
Item 21	-0.121	**0.769**	0.042	0.240	-0.207	0.610
Item 22	-0.121	**0.628**	0.009	0.023	0.091	0.405
Item 23	0.018	**0.786**	-0.232	-0.078	0.032	0.498
Item 24	0.345	**0.552**	-0.067	-0.113	-0.113	0.419
Item 25	**0.808**	-0.009	-0.074	0.075	-0.064	0.616
Item 26	0.282	0.296	-0.221	-0.035	**0.367**	0.433
Item 27	**0.728**	-0.205	0.074	0.280	-0.093	0.671
Item 28	**0.454**	-0.124	0.207	0.378	-0.016	0.589
Item 29	-0.101	-0.024	-0.071	0.431	**0.665**	0.511
Item 30	**0.603**	0.037	-0.202	0.344	-0.102	0.527

Based on the analysis and subject matter expertise the following items and attendant labels were assigned (with coefficient alpha following the title and the full reliability output included in Annex 1):

Summary of CAIMAQ Responses and Exploratory Factor Analysis (n=1770 all items)								
Item	Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	Don't Know
Factor 1: Attitudes toward the Desirability of CAIM Therapies (α = 0.90)								
Item 3: Patients whose doctors know about complementary and alternative medicine, in addition to conventional medicine, benefit more than those whose doctors are only familiar with conventional medicine.	22.49%	30.51%	24.46%	11.24%	4.41%	3.90%	1.30%	1.75%
Item 4: When systems of alternative medicine (such as traditional Chinese medicine) are found to be efficacious in treatment of a disease, doctors should recommend them even though these systems may rely on unknown mechanisms.	9.60%	27.74%	32.71%	13.79%	8.98%	4.97%	1.64%	0.62%
Item 6: Therapies lacking rigorous support from biomedical research (randomized controlled trials, etc.) may nevertheless be of value to doctors.	11.36%	34.58%	32.66%	9.27%	6.50%	3.33%	2.03%	0.34%
Item 8: A system of medicine that integrates therapies of both conventional medicine and complementary and alternative medicine would be more effective than either conventional medicine or complementary and alternative medicine provided independently.	21.64%	28.59%	24.18%	13.05%	5.14%	3.16%	1.58%	2.71%
Item 10: The use of herbal products represents a legitimate form of medicine that can treat a wide variety of disease.	5.31%	12.77%	27.57%	18.42%	15.42%	11.19%	5.48%	3.90%
Item 15: Complementary and alternative medicine contains beliefs, ideas, and therapies from which conventional medicine could benefit.	20.00%	36.50%	27.46%	9.44%	2.43%	1.58%	1.02%	1.64%
Item 16: Chiropractic care can be a valuable method for resolving a wide variety of musculoskeletal problems.	5.59%	19.27%	24.35%	15.88%	10.45%	8.81%	6.72%	8.98%
Item 18: Massage therapy can lead to objective improvements in long-term outcomes for patients.	12.49%	29.32%	25.59%	13.22%	3.28%	1.98%	0.68%	13.50%
Item 25: Doctors should consider referring patients to alternative health care providers such as homeopaths or naturopaths for conditions poorly managed by conventional medicine.	7.97%	20.11%	26.10%	19.38%	10.85%	7.01%	5.65%	2.99%
Item 27: It is ethical for doctors to recommend therapies to patients that involve the use of subtle energy fields in and around the body for medical purposes.	2.54%	9.21%	10.06%	22.09%	11.86%	13.62%	13.28%	17.40%
Item 28: Therapeutic Touch is credible as a form of treatment	4.75%	10.96%	16.10%	18.70%	9.49%	12.03%	8.02%	20.00%
Item 30: Treatments of complementary and alternative medicine tend to be less invasive that those of conventional medicine, and may help to reduce the risk of side-effects and iatrogenesis.	5.59%	15.31%	22.32%	19.49%	13.05%	11.19%	5.71%	7.40%
Factor 2: Attitudes toward Progressive Patient/Physician Health Care Roles (α = 0.79)								
Item 13: Patients who express themselves through creative outlets such as art, music or dance may achieve significant health benefits through these activities.	22.37%	39.32%	24.41%	9.21%	1.30%	0.62%	0.68%	2.15%

Summary of CAIMAQ Responses and Exploratory Factor Analysis (cont) (n=1770 all items)								
Item 14: Doctors who lead a balanced lifestyle (i.e., attending to their own health, social, family and spiritual needs, as well as interests beyond medicine) generate improved patient satisfaction.	33.67%	38.19%	13.95%	7.34%	0.90%	1.02%	0.34%	4.63%
Item 20: A strong relationship between patients and their doctors is a valuable therapeutic intervention that leads to improved outcomes.	38.19%	42.49%	15.48%	2.32%	0.45%	0.23%	0.11%	0.79%
Item 21: Doctors who model a healthy lifestyle (i.e., follow their own advice) generate improved patient outcomes.	21.36%	35.59%	24.07%	7.40%	3.05%	1.98%	0.51%	6.10%
Item 22: Whenever reasonable, a physician should provide patients with hope and a positive attitude toward healing.	45.71%	37.97%	11.81%	3.16%	0.96%	0.28%	0.06%	0.11%
Item 23: A patient who is an active participant in his or her care is likely to experience improved outcomes compared with a patient who is a passive participant.	50.73%	33.67%	10.90%	3.05%	0.51%	0.40%	0.06%	0.73%
Item 24: Nutritional counseling and dietary/food supplements can be effective in the treatment of pathology.	30.06%	40.28%	22.66%	3.50%	1.24%	0.68%	0.11%	1.53%
Factor 3: Attitudes toward the Mind-Body-Spirit Connection (α = 0.70)								
Item 1: A patient's treatment should take into consideration all aspects of his or her physical, mental, and spiritual health.	53.16%	36.55%	8.08%	1.07%	0.40%	0.23%	0.51%	0.06%
Item 5: Prayer, for oneself or others, can benefit quality of life and disease outcomes.	26.21%	29.49%	21.58%	13.11%	2.94%	3.39%	1.92%	1.41%
Item 7: The spiritual beliefs of patients play an important role in their recovery.	39.15%	35.31%	16.61%	5.25%	1.53%	0.79%	0.79%	0.62%
Item 11: A patient's mental state influences his or her physical health.	68.64%	25.54%	4.80%	0.62%	0.11%	0.17%	0.06%	0.11%
Factor 4: Attitudes toward the Principles of Allostasis (α = 0.50)								
Item 2: The focus of a primary care physician should be on promoting health rather than treating disease.	18.47%	31.69%	29.38%	7.80%	7.74%	3.50%	1.24%	0.23%
Item 12: Disease occurs when the body's innate ability to heal itself becomes compromised.	12.37%	30.73%	28.25%	10.56%	8.25%	6.72%	2.60%	0.56%
Item 19: The innate self-healing capacity of patients often determines the outcome of illness regardless of treatment interventions.	7.18%	18.98%	29.83%	14.52%	12.20%	10.06%	3.79%	3.50%
Factor 5: Attitudes toward a Holistic Understanding of Disease (α = 0.66)								
Item 9: End-of-life care should be valued as an opportunity for patients to heal.	29.89%	34.97%	15.31%	9.55%	3.50%	1.41%	0.90%	4.52%
Item 17: A patient with a terminal illness can experience mental and spiritual healing in being at peace with himself or herself.	40.90%	39.38%	13.45%	3.73%	0.34%	0.28%	0.34%	1.64%
Item 26: Even in the absence of clinically significant disease, a person can experience a vast range in terms of physical health.	29.60%	45.71%	15.99%	4.75%	0.68%	0.40%	0.11%	2.82%
Item 29: Disease can be viewed as an opportunity for personal change and growth.	15.42%	32.37%	31.75%	13.28%	3.16%	2.09%	1.19%	0.79%

PARTICIPANT DEMOGRAPHICS AND COMPARISON TO AAMC DATA

When comparing the demographics from the CAIMIQ study to the 2006 Medical School Graduation Questionnaire (accessed at: http://www.aamc.org/data/gq/allschoolsreports/2006.pdf) the following comparisons are made:

	AAMC (2006 n = 11,471)	CAIMAQ (n = 1770)[1]
Gender	49.9% male 50.1% female	43.7% male 57.3% female
Age	Under 24 .5% 24 through 26: 47.5% 27 through 29: 35.4% 30 through 32: 10.7% 33 or older: 5.8%	Under 24 26.4% 24 through 26: 45.2% 27 through 29: 16.3% 30 through 32: 6.7% 33 or older: 5.5%
Ethnicity	Black/6.2% White/66.7% American Indian/Alaska Native/1.2% Asian/17.4% Native Hawaiian or Other Pacific Islander/0.0%	Black/4.3% White/76.2% American Indian/Alaska Native/2% Asian/18.6% Native Hawaiian or Other Pacific Islander/0.6%
Time devoted to Complementary Instruction is adequate	Inadequate 33.9% Appropriate 62.4% Excessive 3.7%	Yes 39.3% No 60.7%

[1] Ethicity cumulative % > 100% since some respondents endorsed two categories (e.g., White and Asian)

Questions on CAM Coursework in Medical School			
answer options	**Yes**	**No**	**Don't Know**
Is coursework in CAM offered at your medical school? (n=1744)	47.19%	29.19%	23.62%
Would you like to receive more education about CAM as part of your medical education? (n=1737)	61.43%	38.57%	
Do you feel that the education you have received regarding Complementary and Alternative Medicine (CAM) as part of your medical education has been adequate? (n=1720)	39.30%	60.70%	
Prior CAM Study			
Have you studied CAM (you may select more than one answer for this question): (n=1739)	As part of the core coursework at your medical school: 31.36%		
	As an elective at your medical school: 16.27%		
	Outside of your medical school: 31.17%		
	Never: 35.14%		
Time Devoted to CAM Instruction is Adequate			
CAIMAQ Population (n=1720)	Yes 39.3% No 60.7%		
AAMC All Schools Report 2006 (n=9453) (36)	Appropriate 62.4% Inadequate 33.9% Excessive 3.7%		
AAMC All Schools Report 1998 (n=13860) (59)	Appropriate 31.7% Inadequate 66.0% Excessive 2.3%		

Questions on CAM use:		
answer options	**Yes**	**No**
Have you ever treated yourself with CAM? (n=1738)	49.19%	50.81%
Have you ever treated someone else with CAM? (n=1739)	13.63%	86.37%
Have you ever received treatment from a provider of CAM (for example, an acupuncturist, a chiropractor, etc.)? (n=1733)	37.97%	62.03%

Have you ever personally used any of the following forms of Complementary and Alternative Medicine? (n=1733)				
answer options	**Never**	**More than 12 months ago**	**Within the past 12 months**	**Response Count**
Acupuncture	85%	11%	4%	1687
Aromatherapy	78%	9%	13%	1687
Ayurveda	95%	3%	3%	1674
Biofeedback	93%	4%	2%	1679
Chelation therapy	99%	1%	0%	1671
Chiropractic care	77%	18%	5%	1690
Deep breathing exercises	55%	13%	32%	1690
Diet-based therapies	72%	9%	20%	1684
Energy healing therapy/Reiki	91%	5%	4%	1681
Folk medicine	90%	6%	4%	1675
Guided imagery	84%	8%	8%	1679
Herbal Medicine	65%	17%	18%	1691
Homeopathic treatment	85%	8%	7%	1681
Hypnosis	94%	3%	2%	1670
Massage	41%	24%	35%	1697
Magnet Therapy	96%	3%	1%	1672
Meditation	63%	12%	25%	1694
Megavitamin therapy	88%	5%	7%	1674
Naturopathy	96%	3%	2%	1671
Non vitamin, nonmineral, natural products	85%	5%	10%	1680
Prayer for health reasons	59%	12%	29%	1697
Progressive relaxation	76%	9%	15%	1675
Reflexology	94%	4%	2%	1670
Qi gong	96%	3%	2%	1677
Tai chi	90%	8%	3%	1679
Yoga	53%	20%	28%	1692

CAIMAQ SUBSCALES

Based on the Promax rotation, five subscales were created calculating the mean of associated items (based on a Likert scale ranging from 1 [Strongly Disagree] to 7 [Strongly Agree]). The following table shows the highest mean is obtained for "Attitudes Toward the Mind-Body-Spirit Connection" (*M* = 6.11, *SD* = .76) and the lowest for "Attitudes toward the Desirability of CAIM Therapies" (*M* = 4.69, *SD* = 1.01). The frequencies and histograms for each of the attitude scales are included in Annex 2.

CAIMAQ Subscales					
	Attitudes toward the Desirability of CAIM Therapies Scale Mean	Attitudes toward Progressive Patient/Physician Health Care Roles Scale Mean	Attitudes toward the Mind-Body-Spirit Connection Scale Mean	Attitudes toward the Principles of Allostasis Scale Mean	Attitudes toward a Holistic Understanding of Disease Scale Mean
N Valid	1770	1770	1770	1770	1770
N Missing	0	0	0	0	0
Mean	4.6870	5.9740	6.1123	4.9147	5.8013
Std. Error of Mean	0.02395	0.01555	0.01803	0.02479	0.01809
Median	4.7500	6.0000	6.2500	5.0000	6.0000
Mode	4.58	5.86	7.00	5.00	6.00
Std. Deviation	1.00759	0.65402	0.75864	1.04310	0.76093
Variance	1.015	0.428	0.576	1.088	0.579
Skewness	-0.447	-0.702	-1.367	-0.418	-0.880
Std. Error of Skewness	0.058	0.058	0.058	0.058	0.058
Kurtosis	0.272	0.654	3.193	0.063	2.116
Std. Error of Kurtosis	0.116	0.116	0.116	0.116	0.116
Range	5.83	4.14	5.75	6.00	5.75
Minimum	1.17	2.86	1.25	1.00	1.25
Maximum	7.00	7.00	7.00	7.00	7.00
Sum	8295.92	10574.00	10818.75	8699.00	10268.25

YEAR LEVEL FOR CAIMAQ SUBSCALES

A one way analysis of variance (ANOVA) was conducted for each of the CAIMAQ subscales to compare "Year Level in Medical School". The level of significance was set at 0.05 and attention is focused on effect size to shed insight on the magnitude of differences (Grissom & Kim, 2005). The effect size (ES) of interest is eta squared (η^2) and small/medium/large is considered: .01/.059/.138 (expressed as percentage of variation accounted for).

Respondent Year in Medical School (n=1742)				
answer options	Frequency	Response Percent	Valid Percent	Cumulative Percent
Valid MS I	521	29.4%	30.2%	30.2%
MS II	483	27.3%	28.0%	58.1%
MS III	409	23.1%	23.7%	81.8%
MS IV	315	17.8%	18.2%	100.0%
Valid Total	1728	97.6%	100.0%	
Missing Data	28	1.6%		
Replied N/A[a]	14	0.8%		
Missing Total	42	2.4%		
Total	1770	100.0%		

[a] N/A coded as missing data.

Summary: The following One-Way ANOVA did not reveal any significant differences between the year levels (MS I to MS IV) with the largest effect size only being $\eta^2 = .003$ (which means 0.3% of the variation in the dependent variable accounted for by year level). The Kruskal-Wallis test was conducted for the Mind-Body scale given the violation of homogeneity of variance assumption, and consistent with the ANOVA results significance was not obtained (χ^2 (3) = 2.022, $p = .568$)

Univariate Analysis of Variance (CAIMAQ subscales by year level) Means						
What is your Year in Medical School?		Attitudes toward the Desirability of CAIM Therapies Scale Mean	Attitudes toward Progressive Patient/Physician Health Care Roles Scale Mean	Attitudes toward the Mind-Body-Spirit Connection Scale Mean	Attitudes toward the Principles of Allostasis Scale Mean	Attitudes toward a Holistic Understanding of Disease Scale Mean
MS I	Mean	4.7327	5.9753	6.1180	4.8964	5.7625
	N	521	521	521	521	521
	SD	0.95747	0.65455	0.69785	1.05020	0.72479
MS II	Mean	4.6841	6.0189	6.0999	4.9758	5.7795
	N	483	483	483	483	483
	SD	1.05175	0.64111	0.80824	1.07214	0.84329
MS III	Mean	4.6938	5.9749	6.1455	4.9038	5.8564
	N	409	409	409	409	409
	SD	1.01056	0.63555	0.79072	1.01540	0.74754
MS IV	Mean	4.6257	5.9338	6.1317	4.8836	5.8405
	N	315	315	315	315	315
	SD	0.98777	0.67394	0.66959	1.02957	0.68578
Total	Mean	4.6904	5.9798	6.1220	4.9180	5.8037
	N	1728	1728	1728	1728	1728
	SD	1.00237	0.65004	0.74731	1.04430	0.75879

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Attitudes toward the Appeal of CAIM Therapies Scale Mean * What is your year in Medical School?	Between Groups (Combined) Within Groups Total	2.277 1732.916 1735.194	3 1724 1727	0.759 1.005	0.755	0.519
Attitudes toward Progressive Patient/Physician Health Care Roles Scale Mean * What is your year in Medical School?	Between Groups (Combined) Within Groups Total	1.427 728.319 729.746	3 1724 1727	0.476 0.422	1.126	0.337
Attitudes toward the Mind-Body-Spirit Connection Scale Mean * What is your year in Medical School?	Between Groups (Combined) Within Groups Total	0.499 963.985 964.484	3 1724 1727	0.166 0.559	0.298	0.827
Attitudes toward the Principles of Allostasis Scale Mean * What is your year in Medical School?	Between Groups (Combined) Within Groups Total	2.315 1881.071 1883.386	3 1724 1727	0.772 1.091	0.707	0.548
Attitudes toward a Holistic Understanding of Disease Scale Mean * What is your year in Medical School?	Between Groups (Combined) Within Groups Total	2.728 991.606 994.334	3 1724 1727	0.909 0.575	1.581	0.192

Levene's Test of Equality Variances[1]				
	F	df1	df2	Sig.
Attitudes toward the Appeal of CAIM Therapies Scale Mean	0.636	3	1724	0.592
Attitudes toward Progressive Patient/Physician Health Care Roles Scale Mean	0.527	3	1724	0.664
Attitudes toward the Mind-Body-Spirit Connection Scale Mean	2.693	3	1724	0.045
Attitudes toward the Principles of Allostasis Scale Mean	0.518	3	1724	0.670
Attitudes toward a Holistic Understanding of Disease Scale Mean	1.919	3	1724	0.125
Tests the null hypothesis that the error variance of the dependent variable is equal across groups. [1] Design: Intercept+yr_med				

Measures of Association		
	Eta	Eta Squared
Attitudes toward the Appeal of CAIM Therapies Scale Mean * What is your year in Medical School?	0.036	0.001
Attitudes toward Progressive Patient/Physician Health Care Roles Scale Mean * What is your year in Medical School?	0.044	0.002
Attitudes toward the Mind-Body-Spirit Connection Scale Mean * What is your year in Medical School?	0.023	0.001
Attitudes toward the Principles of Allostasis Scale Mean * What is your year in Medical School?	0.035	0.001
Attitudes toward a Holistic Understanding of Disease Scale Mean * What is your year in Medical School?	0.052	0.003

Test Statistics (a,b)	
Attitudes toward the Mind-Body-Spirit Connection Scale Mean	
Chi-Square	2.022
df	3
Asymp. Sig.	0.568

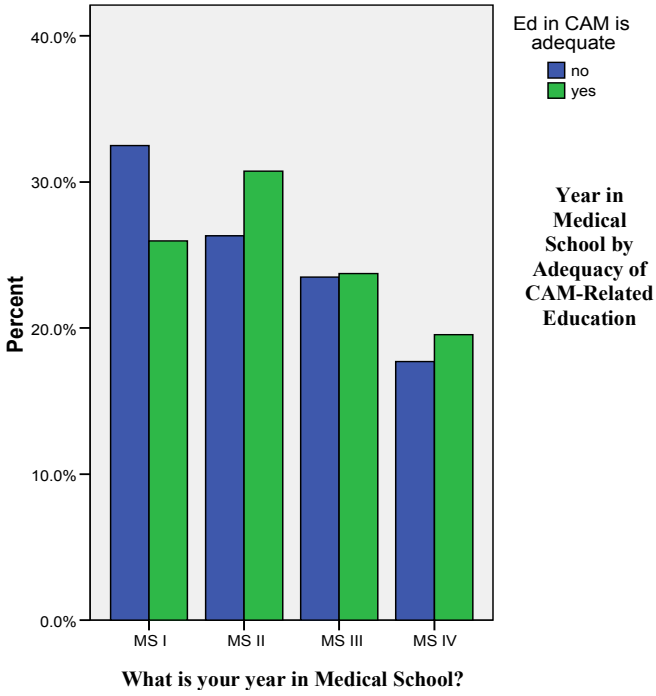
a Kruskal Wallis Test
b Grouping Variable: What is your year in Medical School?

YEAR LEVEL BY "ADEQUATE EDUCATION"

Chi-square analysis was conducted to examine the relationship of year level by "do you feel that the education you have received regarding complementary and alternative medicine (CAM) as part of your medical education has been adequate". The results of the 4 x 2 contingency analysis (with Cramer's V the reported effect size) revealed a significant relationship between the two categorical variables: (χ^2 (3) = 9.41, p = .024, Cramer's V = .074). Of note as illustrated in the following clustered bar chart is the relatively higher 'no' responses for the MSI year level when compared to all other year levels.

Crosstabulation: What is your year in Medical School (yr_med) * CAM-related education is adequate (ed_CAM)

			CAM-related education is adequate		
			No	Yes	Total
Year in Medical School	MS I	Count	336	174	510
		Expected Count	309.5	200.5	510.0
		% within yr_med	65.9%	34.1%	100.0%
		% within ed_CAM	32.5%	26.0%	29.9%
		% of total	19.7%	10.2%	29.9%
	MS II	Count	272	206	478
		Expected Count	290.1	187.9	478.0
		% within yr_med	56.9%	43.1%	100.0%
		% within ed_CAM	26.3%	30.7%	28.1%
		% of total	16.0%	12.1%	28.1%
	MS III	Count	243	159	402
		Expected Count	243.9	158.1	402.0
		% within yr_med	60.4%	39.6%	100.0%
		% within ed_CAM	23.5%	23.7%	23.6%
		% of total	14.3%	9.3%	23.6%
	MS IV	Count	183	131	314
		Expected Count	190.5	123.5	314.0
		% within yr_med	58.3%	41.7%	100.0%
		% within ed_CAM	17.7%	19.6%	18.4%
		% of total	10.7%	7.7%	18.4%
Total		Count	1034	670	1704
		Expected Count	1034.0	670.0	1704.0
		% within yr_med	60.7%	39.3%	100.0%
		% within ed_CAM	100.0%	100.0%	100.0%
		% of total	60.7%	39.3%	100.0%



Chi-Square Tests			
Pearson Chi-Square	Value	df	Asymp. Sig (2-sided)
Likelihood Ratio	9.409[1]	3	0.024
Linear-by-Linear	9.479	3	0.024
Association	3.773	1	0.052
N of Valid Cases	1704		

[1] Not assuming the null hypothesis.

Symmetric Measures					
		Value	Aymp. Std. Error[1]	Approx. T[2]	Approx. Sig.
Nominal by Nominal	Phi	0.074			0.024
	Cramer's V	0.074			0.024
	Contingency Coefficient	0.074			0.024
Interval by Interval	Pearson's R	0.047	0.024	1.944	0.052[3]
Ordinal by Ordinal	Spearman Correlation	0.049	0.024	2.041	0.041[3]
N of Valid Cases		1704			

[1] Not assuming the null hypothesis.
[2] Using the asymptotic standard error assuming the null hypothesis.
[3] Based on normal approximation.

REFERENCES

Allison, P. D. (2000). Multiple imputation for missing data. *Sociological Methods & Research*, 28, 301-309.

Barrett, P.T. (2007) Structural Equation Modelling: Adjudging Model Fit. *Personality and Individual Differences*, 42, 5, 812-824 (with 9 peer review commentaries).

Boomsma, A. (2000). Reporting analyses of covariance structures. *Structural Equation Modeling, 7*, 461-483.

Burnham, K. P., & Anderson, D. R. (1998). *Model selection and inference*. NY: Springer.

Chou, C. P., Bentler, P. M., & Satorra, A. (1991). Scaled test statistics and robust standard errors for non-normal data in covariance structure analysis: A Monte Carlo study, *British Journal of Mathematical and Statistical Psychology, 44*, 347-357.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd Ed.). Mahwah, NJ: Lawrence Erlbaum.

Dolan, C. V. (1994). Factor analysis of variables with 2, 3, 5 and 7 response categories: A comparison of categorical variable estimators using simulated data. *British Journal of Mathematical and Statistical Psychology*, 47, 309-326.

Du Toit, M., & Du Toit, S. (2001). *Interactive LISREL: User's guide*. Lincolnwood, IL: Scientific Software International.

Gorsuch, R. L. (1983). *Factor analysis.* Hillsdale, NJ: Lawrence Erlbaum.

Grissom, R. J., & Kim, J. J. (2005). *Effect sizes for research*. Mahwah, NJ: Lawrence Erlbaum.

Harel, O, & Zhou, X. H. (2007). Multiple imputation: Review of theory, implementation and software. *Statistics in Medicine*, 26, 3057-3077.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55.

Jöreskog, K. G., & Sörbom, D. (1996). *PRELIS2: User's reference guide*. Lincolnwood, IL: Scientific Software International.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL8: Structural Equation Modeling with the SIMPLIS Command Language*. Lincolnwood, IL: Scientific Software International.

Jöreskog, K. G., Sörbom, D., du Toit, S., & du Toit, M. (2001). *LISREL8: New Statistical Features*. Lincolnwood, IL: Scientific Software International.

Leite, W. L., & Beretvas, S. N. (2004). The performance of multiple imputation for Likert-type items with missing data. Paper presented at the Annual Meeting of the American Educational Research Association; San Diego, CA.

Little, R. J. A., & Rubin, D. B. (1987). *Statistical analysis with missing data*. NY: Wiley.

Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling: A Multidisciplinary Journal, 11*(3), 320-341.

Muthén, B., & Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology*, 38, 171-189.

Nevitt, J., & Hancock, G. R. (1994). Evaluating small sample approaches for model test statistics in structural equation modeling. *Multivariate Behavioral Research, 39*, 439-478.

Nunnally, J. C., & Bernstein, I. H. *Psychometric theory.* (1994). (3rd Ed.). NY: McGraw-Hill.

Schafer, J. L. (1997). *Analysis of incomplete multivariate data.* London: Chapman & Hall.

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7(2), 147-177.

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences*. (4th Ed.). Mahwah, NJ: Lawrence Erlbaum.

Thompson, B. (2004). *Exploratory and confirmatory factor analysis.* DC: American Psychological Association.

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables. In R. H. Hoyle (Ed), *Structural equation modeling: Concepts, issues, and applications* (pp. 56-75). Thousand Oaks, CA: Sage.

ANNEX 1: RELIABILITIES FOR CAIMAQ SCALES

Factor 1 Reliability: Attitudes toward the Desirability of CAIM Therapies [k=12]
Scale ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	1770	100.0
	Excluded(a)	0	0.0
	Total	1770	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.904	0.905	12

Item Statistics

	Mean	Std. Deviation	N
Item 3	5.38	1.384	1770
Item 4	4.94	1.367	1770
Item 6	5.17	1.324	1770
Item 8	5.32	1.398	1770
Item 10	4.15	1.538	1770
Item 15	5.53	1.182	1770
Item 16	4.35	1.598	1770
Item 18	5.26	1.163	1770
Item 25	4.49	1.571	1770
Item 27	3.53	1.580	1770
Item 28	3.95	1.586	1770
Item 30	4.17	1.569	1770

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum/ Minimum	Variance	N of Items
Inter-Item Correlations	0.442	0.249	0.680	0.431	2.730	0.008	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 3	50.86	124.436	0.642	0.486	0.895
Item 4	51.31	128.842	0.499	0.287	0.902
Item 6	51.07	129.007	0.513	0.274	0.901
Item 8	50.92	122.364	0.708	0.274	0.892
Item 10	52.09	120.955	0.676	0.567	0.893
Item 15	50.71	125.319	0.736	0.465	0.892
Item 16	51.89	123.030	0.581	0.588	0.898
Item 18	50.98	129.957	0.562	0.359	0.899

Item 25	51.75	119.407	0.709	0.357	0.892							
Item 27	52.72	119.017	0.716	0.521	0.891							
Item 28	52.29	121.495	0.635	0.603	0.896							
Item 30	52.07	123.225	0.589	0.519	0.898							
Inter-Item Correlation Matrix												
	Item 3	Item 4	Item 6	Item 8	Item 10	Item 15	Item 16	Item 18	Item 25	Item 27	Item 28	Item 30
Item 3	1.000	0.425	0.380	0.617	0.476	0.613	0.383	0.424	0.468	0.433	0.404	0.382
Item 4	0.425	1.000	0.297	0.434	0.379	0.434	0.306	0.249	0.418	0.387	0.273	0.318
Item 6	0.380	0.297	1.000	0.430	0.397	0.443	0.303	0.331	0.381	0.380	0.346	0.350
Item 8	0.617	0.434	0.430	1.000	0.552	0.666	0.415	0.433	0.518	0.524	0.440	0.426
Item 10	0.476	0.379	0.397	0.552	1.000	0.557	0.453	0.403	0.533	0.531	0.474	0.436
Item 15	0.613	0.434	0.443	0.666	0.557	1.000	0.464	0.485	0.545	0.521	0.468	0.444
Item 16	0.383	0.306	0.303	0.415	0.453	0.464	1.000	0.435	0.471	0.461	0.408	0.416
Item 18	0.424	0.249	0.331	0.433	0.403	0.485	0.435	1.000	0.431	0.395	0.456	0.332
Item 25	0.468	0.418	0.381	0.518	0.533	0.545	0.471	0.431	1.000	0.612	0.503	0.518
Item 27	0.433	0.387	0.380	0.524	0.531	0.521	0.461	0.395	0.612	1.000	0.680	0.498
Item 28	0.404	0.273	0.346	0.440	0.474	0.468	0.408	0.456	0.503	0.680	1.000	0.422
Item 30	0.382	0.318	0.318	0.426	0.436	0.444	0.416	0.332	0.518	0.498	0.422	1.000

Factor 2 Reliability: Attitudes toward Progressive Patient/Physician Health Care Roles [k=7]
Scale ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	1770	100.0
	Excluded(a)	0	0.0
	Total	1770	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.786	0.787	7

Item Statistics

	Mean	Std. Deviation	N
Item 13	5.68	1.068	1770
Item 14	5.95	1.061	1770
Item 20	6.15	0.848	1770
Item 21	5.58	1.171	1770
Item 22	6.23	0.892	1770
Item 23	6.30	0.878	1770
Item 24	5.93	0.957	1770

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum/ Minimum	Variance	N of Items
Inter-Item Correlations	0.345	0.262	0.557	0.295	2.123	0.005	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 13	36.14	15.466	0.518	0.298	0.758
Item 14	35.87	15.131	0.570	0.395	0.747
Item 20	35.67	16.514	0.540	0.304	0.755
Item 21	36.24	14.363	0.589	0.407	0.743
Item 22	35.59	16.695	0.476	0.243	0.766
Item 23	35.51	16.839	0.465	0.246	0.768
Item 24	35.89	16.629	0.437	0.207	0.773

Inter-Item Correlation Matrix

	Item 13	Item 14	Item 20	Item 21	Item 22	Item 23	Item 24
Item 13	1.000	0.458	0.372	0.349	0.309	0.272	0.327
Item 14	0.458	1.000	0.356	0.557	0.299	0.273	0.280
Item 20	0.372	0.356	1.000	0.444	0.356	0.353	0.287
Item 21	0.349	0.557	0.444	1.000	0.360	0.316	0.304
Item 22	0.309	0.299	0.356	0.360	1.000	0.367	0.262
Item 23	0.272	0.273	0.353	0.316	0.367	1.000	0.345
Item 24	0.327	0.280	0.287	0.304	0.262	0.345	1.000

Factor 3 Reliability: Attitudes toward the Mind-Body-Spirit Connection [k=4]
Scale ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	1770	100.0
	Excluded(a)	0	0.0
	Total	1770	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.698	0.715	4

Item Statistics

	Mean	Std. Deviation	N
Item 1	6.38	0.841	1770
Item 5	5.45	1.418	1770
Item 7	6.00	1.110	1770
Item 11	6.61	0.660	1770

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum/ Minimum	Variance	N of Items
Inter-Item Correlations	0.386	0.266	0.583	0.317	2.192	0.012	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	18.07	6.613	0.436	0.211	0.666
Item 5	19.00	4.128	0.533	0.344	0.637
Item 7	18.45	4.744	0.668	0.448	0.503
Item 11	17.84	7.319	0.408	0.195	0.690

Inter-Item Correlation Matrix

	Item 1	Item 5	Item 7	Item 11
Item 1	1.000	0.309	0.425	0.320
Item 5	0.309	1.000	0.583	0.266
Item 7	0.425	0.583	1.000	0.411
Item 11	0.320	0.266	0.411	1.000

Factor 4 Reliability: Attitudes toward the Principles of Allostasis [k=3]
Scale ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	1770	100.0
	Excluded(a)	0	0.0
	Total	1770	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.503	0.498	3

Item Statistics

	Mean	Std. Deviation	N
Item 2	5.30	1.367	1770
Item 12	4.98	1.505	1770
Item 19	4.47	1.541	1770

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum/ Minimum	Variance	N of Items
Inter-Item Correlations	0.249	0.185	0.376	0.192	2.038	0.010	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 2	9.44	6.383	0.223	0.050	0.547
Item 12	9.77	5.025	0.371	0.155	0.311
Item 19	10.28	4.893	0.370	0.155	0.310

Inter-Item Correlation Matrix

	Item 2	Item 12	Item 19
Item 2	1.000	0. 185	0. 185
Item 12	0.185	1.000	0.583
Item 19	0. 185	0.379	1.000

Factor 5 Reliability: Attitudes toward a Holistic Understanding of Disease [k=3]
Scale ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	1770	100.0
	Excluded(a)	0	0.0
	Total	1770	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.659	0.670	4

Item Statistics

	Mean	Std. Deviation	N
Item 9	5.73	1.249	1770
Item 17	6.16	0.915	1770
Item 26	5.99	0.902	1770
Item 29	5.33	1.214	1770

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum/ Minimum	Variance	N of Items
Inter-Item Correlations	0.337	0.247	0.440	0.193	1.783	0.004	4

Item-Total Statistics

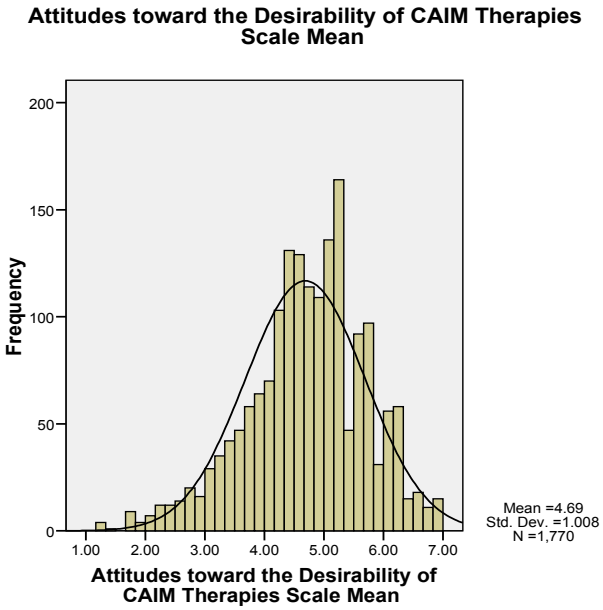
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 9	17.48	5.164	0.447	0.228	0.592
Item 17	17.05	6.041	0.530	0.286	0.544
Item 26	17.21	6.668	0.383	0.159	0.629
Item 29	17.88	5.341	0.436	0.194	0.598

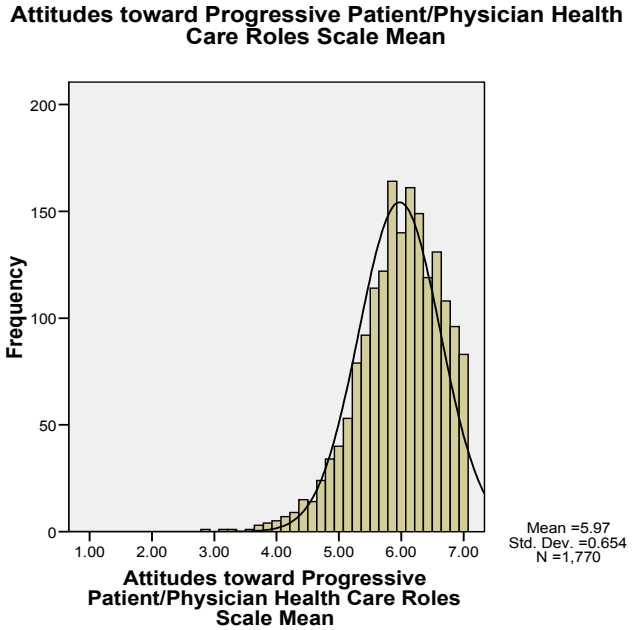
Inter-Item Correlation Matrix

	Item 9	Item 17	Item 26	Item 29
Item 9	1.000	0. 440	0.247	0.322
Item 17	0.440	1.000	0.344	0.365
Item 26	0.247	0.344	1.000	0.301
Item 29	0.322	0.365	0.301	1.000

ANNEX 2: FREQUENCIES FOR CAIMAQ SCALES

Attitudes toward the Desirability of CAIM Therapies Scale Mean				
Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.17	2	.1	.1	.1
1.25	1	.1	.1	.2
1.33	1	.1	.1	.2
1.42	1	.1	.1	.3
1.67	5	.3	.3	.6
1.75	3	.2	.2	.7
1.83	1	.1	.1	.8
1.92	4	.2	.2	1.0
2.00	3	.2	.2	1.2
2.08	4	.2	.2	1.4
2.17	8	.5	.5	1.9
2.25	4	.2	.2	2.1
2.33	8	.5	.5	2.5
2.42	4	.2	.2	2.8
2.50	4	.2	.2	3.0
2.58	10	.6	.6	3.6
2.67	8	.5	.5	4.0
2.75	12	.7	.7	4.7
2.83	11	.6	.6	5.3
2.92	5	.3	.3	5.6
3.00	13	.7	.7	6.3
3.08	16	.9	.9	7.2
3.17	18	1.0	1.0	8.2
3.25	17	1.0	1.0	9.2
3.33	14	.8	.8	10.0
3.42	28	1.6	1.6	11.6
3.50	27	1.5	1.5	13.1
3.58	20	1.1	1.1	14.2
3.67	26	1.5	1.5	15.7
3.75	32	1.8	1.8	17.5
3.83	32	1.8	1.8	19.3
3.92	32	1.8	1.8	21.1
4.00	34	1.9	1.9	23.1
4.08	36	2.0	2.0	25.1
4.17	37	2.1	2.1	27.2
4.25	66	3.7	3.7	30.9
4.33	69	3.9	3.9	34.8
4.42	62	3.5	3.5	38.3
4.50	55	3.1	3.1	41.4
4.58	74	4.2	4.2	45.6
4.67	50	2.8	2.8	48.4
4.75	64	3.6	3.6	52.0
4.83	48	2.7	2.7	54.7
4.92	61	3.4	3.4	58.2
5.00	70	4.0	4.0	62.1
5.08	66	3.7	3.7	65.9
5.17	58	3.3	3.3	69.2
5.25	48	2.7	2.7	71.9
5.33	58	3.3	3.3	75.1
5.42	47	2.7	2.7	77.8
5.50	42	2.4	2.4	80.2
5.58	50	2.8	2.8	83.0
5.67	39	2.2	2.2	85.2
5.75	35	2.0	2.0	87.2
5.83	23	1.3	1.3	88.5
5.92	31	1.8	1.8	90.2
6.00	35	2.0	2.0	9202
6.08	21	1.2	1.2	93.4





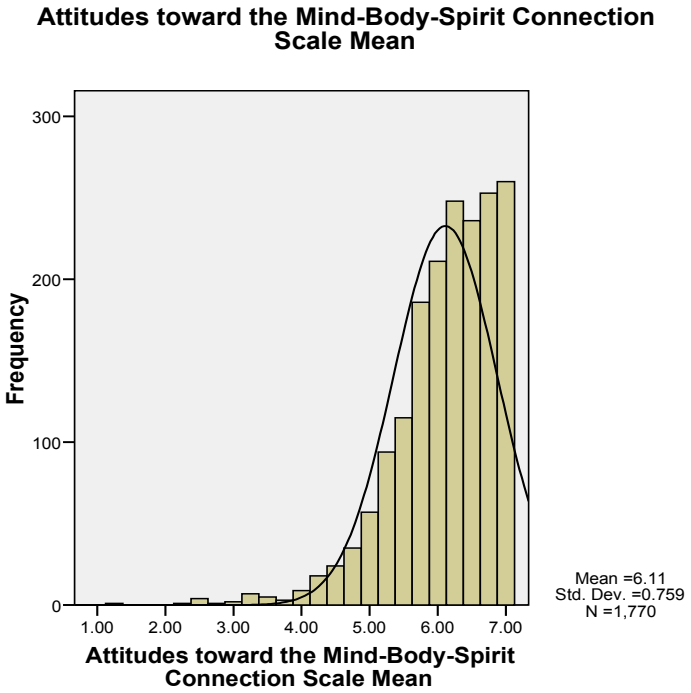
6.17	19	1.1	1.1	94.5
6.25	20	1.1	1.1	95.6
6.33	19	1.1	1.1	96.7
6.42	15	.8	.8	97.5
6.50	15	.8	.8	98.4
6.58	3	.2	.2	98.5
6.67	5	.3	.3	98.8
6.75	6	.3	.3	99.2
6.83	4	.2	.2	99.4
6.92	3	.2	.2	99.5
7.00	8	.5	.5	100.0
Total	1770	100.0	100.0	

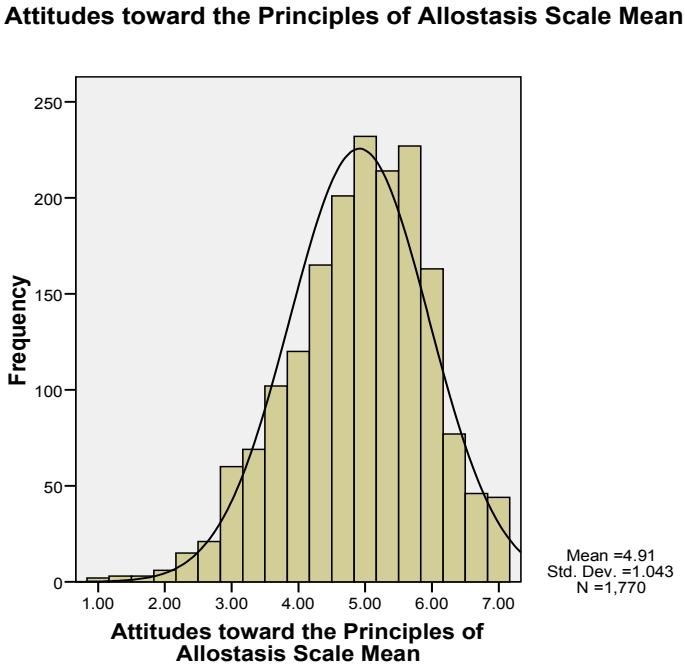
Attitudes toward Progressive Patient/Physician Health Care Roles Scale Mean

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
2.86	1	.1	.1	.1
3.14	1	.1	.1	.1
3.29	1	.1	.1	.2
3.57	1	.1	.1	.2
3.71	3	.2	.2	.4
3.86	4	.2	.2	.6
4.00	5	.3	.3	.9.
4.14	7	.4	.4	1.3
4.29	9	.5	.5	1.8
4.43	15	.8	.8	2.7
4.57	14	.8	.8	3.4
4.71	24	1.4	1.4	4.8
4.86	34	1.9	1.9	6.7
5.00	40	2.3	2.3	9.0
5.14	53	3.0	3.0	12.0
5.29	79	4.5	4.5	16.4
5.43	92	5.2	5.2	21.6
5.57	114	6.4	6.4	28.1
5.71	122	6.9	6.9	35.0
5.86	164	9.3	9.3	44.2
6.00	140	7.9	7.9	52.1
6.14	161	9.1	9.1	61.2
6.29	149	8.4	8.4	69.7
6.43	119	6.7	6.7	76.4
6.57	131	7.4	7.4	83.8
6.71	108	6.1	6.1	89.9
6.86	96	5.4	5.4	95.3
7.00	83	4.7	4.7	100.0
Total	1770	100.0	100.0	

Attitudes toward the Mind-Body-Spirit Connection Scale Mean

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.25	1	.1	.1	.1
2.25	1	.1	.1	.1
2.50	4	.2	.2	.3
2.75	1	.1	.1	.4
3.00	2	.1	.1	.5
3.25	7	.4	.4	.9
3.50	5	.3	.3	1.2
3.75	3	.2	.2	1.4
4.00	9	.5	.5	1.9
4.25	18	1.0	1.0	2.9
4.50	24	1.4	1.4	4.2
4.75	35	2.0	2.0	6.2
5.00	57	3.2	3.2	9.4





5.25	94	5.3	5.3	14.7
5.50	115	6.5	6.5	21.2
5.75	186	10.5	10.5	31.8
6.00	211	11.9	11.9	43.7
6.25	248	14.0	14.0	57.7
6.50	236	13.3	13.3	71.0
6.75	253	14.3	14.3	85.3
7.00	260	14.7	14.7	100.0
Total	1770	100.0	100.0	

Attitudes toward the Principles of Allostasis Scale Mean

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	2	.1	.1	.1
1.33	3	.2	.2	.3
1.67	3	.2	.2	.5
2.00	6	.3	.3	.8
2.33	15	.8	.8	1.6
2.67	21	1.2	1.2	2.8
3.00	60	3.4	3.4	6.2
3.33	69	3.9	3.9	10.1
3.67	102	5.8	5.8	15.9
4.00	120	6.8	6.8	22.7
4.33	165	9.3	9.3	32.0
4.67	201	11.4	11.4	43.3
5.00	232	13.1	13.1	56.4
5.33	214	12.1	12.1	68.5
5.67	227	12.8	12.8	81.4
6.00	163	9.2	9.2	90.6
6.33	77	4.4	4.4	94.9
6.67	46	2.6	2.6	97.5
7.00	44	2.5	2.6	100.0
Total	1770	100.0	100.0	

Attitudes toward a Holistic Understanding of Disease Scale Mean

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.25	2	.1	.1	.1
1.75	1	.1	.1	.2
2.25	1	.1	.1	.2
2.75	1	.1	.1	.3
3.00	2	.1	.1	.4
3.25	6	.3	.3	.7
3.50	6	.3	.3	1.1
3.75	7	.4	.4	1.5
4.00	17	1.0	1.0	2.4
4.25	23	1.3	1.3	3.7
4.50	47	2.7	2.7	6.4
4.75	68	3.8	3.8	10.2
5.00	123	6.9	6.9	17.2
5.25	164	9.3	9.3	26.4
5.50	195	11.0	11.0	37.5
5.75	219	12.4	12.4	49.8
6.00	256	14.5	14.5	64.3
6.25	219	12.4	12.4	76.7
6.50	167	9.4	9.4	86.1
6.75	136	7.7	7.7	93.8
7.00	110	6.2	6.2	100.0
Total	1770	100.0	100.0