Five Facets Mindfulness Questionnaire—Reliability and Factor Structure: A Swedish Version

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Abstract. Two studies were conducted to assess the Swedish version of the Five Facets Mindfulness Questionnaire (FFMQ), which was originally created by Baer et al. (2006). The aim of Study 1 was to examine the psychometric properties of the FFMQ using data from 495 individuals. Quantitative and qualitative analyses resulted in a reduction of the scale by 10 items. Psychometric properties, including internal consistency of the revised instrument, were examined. The Swedish FFMQ provides results comparable to those obtained by Baer. Cronbach's alphas were high for all the facets. The Swedish FFMQ appears to be a potentially useful tool in measuring mindfulness among Swedish participants. The aim of Study 2 was to test the suggested hierarchical five-factor solution and construct validity, using a confirmatory factor analysis (CFA). Similar to findings for the English version of the FFMQ, the CFA showed that the Observing facet was not a significant part of an overall self-reported mindfulness structure in a Swedish population with little meditation experience. *Key words: mindfulness; FFMQ; Swedish population; content validity; internal reliability; confirmatory factor analysis.*

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The concept of mindfulness, which has its origin in Eastern traditions of meditation, has recently attracted a widely increased interest throughout the Western world in connection with the development of various forms of cognitive behaviour therapy and other programs for the training of mindfulness skills. Some of the most important of these are mindfulness-based stress reduction (Kabat-Zinn, 2004), dialectical behaviour therapy (DBT; Linehan, 1993), acceptance and commitment therapy (Hayes, Strosahl, & Wilson, 2004), and mindfulness-based cognitive therapy (Segal, Williams, & Teasdale, 2002).

To facilitate research on mindfulness, a number of questionnaires aimed at measuring this construct have been developed, most of them in the United States. One of the most comprehensive is the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), which is of special interest because it was developed on the basis of factor analyses of the combined pool of items from five other mindfulness questionnaires. In order to investigate mindfulness outside of the United States, questionnaires need to be developed and/or evaluated in the specific culture where they are to be used. Although two other instruments for the measurement of mindfulness have been translated into Swedish (Hansen, Lundh, Homman, & Wångby-Lundh, 2009)—the Mindful

Attention Awareness Scale (MAAS; Brown & Ryan, 2003) and the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen, 2004)—the broad approach and comprehensive aims of the FFMQ make it especially interesting to test in a Swedish setting. The aim of the present study was to develop and evaluate a Swedish version of the FFMQ.

In accordance with other researchers in this field (e.g. Brown & Ryan, 2003, 2004; Kabat-Zinn, 1995, 2004; Linehan, 1993), Baer et al. (2006) defined mindfulness in terms of bringing one's complete attention to the experiences occurring in the present moment in a nonjudgmental or accepting way. This suggests that full attention and acceptance may be seen as two basic aspects of mindfulness. According to Brown and Ryan (2003), mindfulness is a state of consciousness that is available to everyone, but the capacity to attain this state more frequently can be cultivated by a number of different practices, of which meditation is one. Various questionnaire measures, however, operationalize mindfulness in different ways, and there is still no consensus on how the construct should be analyzed into factors or components. For example, according to Brown and Ryan's (2003) MAAS operationalization, mindfulness consists of a single factor described as attention to and awareness of what is taking place in the present, whereas acceptance is seen as subsumed within the capacity to pay full attention to the present moment. On the other hand, Baer et al. (2004), influenced by Linehan's (1994) DBT model, developed an operationalization of mindfulness in terms of four different skills: observing, describing, acting with awareness, and accepting without judgment.

To further clarify the facet structure of the mindfulness construct, Baer et al. (2006) set out to factor analyze the combined pool of items from five different mindfulness questionnaires, including not only the MAAS and the KIMS but also the Freiburg Mindfulness Inventory (Walach, Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006), the Cognitive and Affective Mindfulness Scale (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007), and the Southampton Mindfulness Questionnaire (Chadwick, Hember, Symes, Peters, Kuipers, & Dagnan, 2008). The results

of Baer et al. (2006) suggested that five distinct facets are represented within the currently available mindfulness questionnaires, four of them corresponding to the four KIMS skills (Observing, Describing, Acting with Awareness, and Nonjudging of Experience), while adding a fifth facet: Nonreactivity to Inner Experience. Hierarchical confirmatory factor analyses (CFA), however, only supported four of the identified factors as components of an overall mindfulness construct, whereas the fifth one (Observing) failed to fit the hierarchical model in their full CFA sample, although it did fit well with the hierarchical model in a subsample having some experience of meditation (see also Baer et al., 2008).

In view of these findings, it is of interest to see whether these results are replicated in other languages and cultures. For this purpose, two studies were carried out: one to develop a Swedish version of the FFMQ and a second to test its factor structure by CFA.

Study 1: psychometric characteristics of the mindfulness questionnaire

Research shows that good psychometric characteristics in one culture do not automatically translate to another culture (Erkut, 2010). Erkut states: "There is a potential for bias when researchers from one language or culture wish to measure some aspect of the psychological development of the members of a different group by using a translation of an instrument developed in the researchers' culture" (p. 20). The purpose of the present study was, therefore, to develop a Swedish translation of the FFMQ and to test its psychometric characteristics. Do all the FFMQ facets in the Swedish version show good internal consistency, and do they correlate with each other and the total scale in the same way as the English version? As part of this purpose, we also wanted to test whether the number of FFMQ items was optimal, in view of how Swedish respondents experience the questionnaire (i.e. analyzing their answers both qualitatively and quantitatively). It cannot be taken for granted that what is optimal in this sense in one language/culture is also optimal in another. Given the limited demographic characteristics

in Baer et al. (2006), we also wanted to analyze whether age and gender affected the level of mindfulness.

Method

Participants. Data were collected from a wide range of people, including Swedish university students, health care practitioners, teachers at a Swedish university, and the general population (see Table 1). The sample included persons differing in age, social background, profession, and gender. The sample was a convenience sample and the participants were contacted via mail or personal contact. No compensation for participation was offered. The sample also included 22 mindfulness meditators, who were recruited from different Buddhist meditation centers in Gothenburg, Sweden. The total number of participants was 498 (296 women and 197 men; five participants did not state their gender); however, three individuals left the FFMQ blank, resulting in a sample size of 495. Age distribution of participants was as follows: < 21 years, $n = 73$; 21–24 years, $n = 178$; 25–30 years, $n = 63$; 31–40 years, $n = 65$; 41–50 years, $n = 53$; > 50 years, $n = 61$. Two individuals did not state an age. Participants reported the following meditation experience: 288 "none at all" (58%), 123 "a little" (25%), 67 "some" (14%), and 17 "a lot" (3.4%). In one questionnaire, meditation experience was not stated. The participants from the meditation centers and those who reported "a lot" of meditation experience were combined into one subgroup of experienced meditators ($n = 29$).

Instruments. Three Swedish research groups (from the University of Lund, the Karolinska Institute, and the University of Gothenburg) collaborated on the Swedish translation of the FFMQ. This work proceeded in several steps. In a first step, the FFMQ was translated into Swedish in collaboration between two of the current authors (Lars-Gunnar Lundh and Camilla Sköld), one of whom is a professional translator of psychological literature from English to Swedish. In a second step, the remaining authors scrutinized the Swedish formulations in detail, and came up with a number of alternative formulations that were discussed in terms of meaning and general comprehensibility, and compared with regard to their resulting back-translation, until consensus was reached. Then a pilot study (Frodi-Lundgren, 2008) was conducted in which respondents were asked to comment on the wording of each item. Some modifications based on these comments resulted in the presently used Swedish version of the FFMQ (FFMQ_SWE; see Appendix). The instruments handed out to participants were the FFMQ_SWE and a questionnaire asking them to self-report their demographic information. Participants were also given information about the study, stipulating in particular that participation was completely voluntary and that data would be treated with confidentiality.

The FFMQ consists of five facets and a total of 39 statement items: Nonreactivity to Inner Experience (seven items), Observing (noticing/attending to sensations /perceptions/thoughts/ feelings; eight items), Acting

Table 1. *Demographic characteristics of the sample*

Sample	Number of participants
Students from Halmstad College and University of Gothenburg	306
Practitioners at a maternal and child health clinic	31
Practitioners of cognitive and behavioural therapy in child and adolescent psychiatry	27
Practitioners at a psychiatric child clinic	24
Practitioners of cognitive and behavioral psychotherapy	19
Teachers at Halmstad Elementary School	18
Health clinic workers	24
General public	27
Mindfulness meditators	22
Total	498

with Awareness (automatic pilot/concentration/nondistraction; eight items), Describing (labeling feelings/thoughts with words; eight items), and Nonjudging of Experience (eight items). FFMQ items are rated using a 1−5 Likert scale ranging from "never or very rarely true" to "very often or always true." To develop the Swedish FFMQ, the questionnaire ended with the option for respondents to comment on any questions that were difficult to understand. On a second page participants were asked to provide demographic information: age, gender, meditation experience (response options: "none," "a little," "some," and "a lot"), and type of meditation experience. Age was assessed by decade for purposes related to confidentiality.

Data analysis. Cronbach's alpha was used as a measure of internal consistency. An alpha in the range of .70 to .90 indicates acceptable to good internal consistency. An alpha higher than .90 indicates redundancy, suggesting that several questions ask the same thing but in slightly different ways (Norman & Streiner, 1989). Fisher's *r*-to-*z* transformation was applied for significance test of the difference between two correlations coefficients (Vassar-Stats, 2009). Initially, Pearson correlation coefficients analysis and one-way analysis of variance (with post hoc multiple-comparison tests) were conducted to obtain a first analysis of the overall associations between variables and differences between groups. A hierarchical regression analysis was conducted to test whether levels of mindfulness were predicted by gender, age, or meditation experience. The R^2 change was examined to evaluate the model. Two models were used: Age and gender were entered in the first model and meditation experience was added in the second model, with the FFMQ for each facet and the global score as the dependent variables. In the multiple regression analysis, we were interested in whether independent variables were significant contributors to the regression when used in *combination* with the other independent variables and whether the multiple *R* differed from zero, in other words whether there was a statistically significant relationship between the dependent variables and the linear combination of independent variables.

Results

Qualitative and quantitative analyses of responses to the FFMQ_SWE. The first analysis focused on which items the respondents had commented on and/or thought were difficult to answer and the missing answers. Most participants did not write any general comments on the FFMQ. Most responses were related to the Nonreactivity to Inner Experience facet: "too many similar questions," "many iterations," and comments that questions were lengthy and unnecessarily complicated. Many respondents commented on the concept of "inre bilder" ("mental images"), which is found in Questions 19, 24, 29, 33, and 35 (Nonreactivity facet). Many respondents reported that they found it difficult to interpret the phrase: "känslomässigt upprörande tankar" ("distressing thoughts") in Questions 24, 29, and 35. The data contained few missing answers (< 1%), the majority of which were found in the Nonreactivity facet (22 missing answers). We examined each facet separately for internal consistency. Cronbach's alpha ranged from .75 to .90. The range of each facet's interitem correlations was as follows: Nonreactivity, .366−.586; Observing, .389−.618; Acting with Awareness, .528−.622; Describing, .603−.722; Nonjudging, .568−.751.

Developing the Swedish FFMQ. Based on the qualitative results (e.g. the comments about iterations and complicated wording) and quantitative results (high internal consistency and interitem correlations), R. A. Baer (10 June, 2008) was consulted and the possibility of item reduction was discussed. This resulted in the elimination of 10 items: Items 12, 13, 14, 30, 34, and 37 because of iterations and redundancy; Item 35 because it did not translate well into Swedish; and Items 21, 23, and 36 because they significantly lowered the facets' Cronbach alpha. With these deletions, the FFMQ_SWE now contained 29 items (Table 2). Correlations between the two versions ranged from .96 to .99 for the different facets. The correlation between the two versions of the global scale was .98. The FFMQ_SWE thus consists of 29 items—Nonreactivity to Inner Experience: Items 4, 9, 16, 19, 24, 27; Observing: Items 1, 6, 11, 12, 17, 21, 25; Acting with Awareness: Items 5, 8R,

Table 2. *Cronbach's alpha coefficients in each study*

Facet	Baer et al. (2006) (39-item FFMQ)	Present study (29-item FFMQ)
Nonreactivity: Items 4, 9, 19, (21), 24, 29, 33	0.75	0.75
Observing: Items 1, 6, 11, 15, 20, 26, 31, (36)	0.83	0.75
Acting with Awareness: Items 5R, 8R, (13R), 18R, (23R), 28R, (34R), 38R	0.87	0.82
Describing: Items 2, 7, (12R), 16R, 22R, 27, 32, (37)	0.91	0.85
Nonjudging: Items 3R, 10R, (14R), 17R, 25R, (30R), (35R), 39R	0.87	0.82
Global scale	0.87	0.81

Note. *For the current study, $N = 495$. Deleted items are identified in parentheses. FFMQ, Five Facets Mindfulness Questionnaire; R, reverse-scored.*

15R, 23R, 28R); Describing: Items 2, 7, 13R, 18R, 22, 26; and Nonjudging of Experience: Items 3R, 10R, 14R, 20R, 29R).[1]("R" indicates items that were reversed scored.)

Internal consistency after item reduction. Internal consistency and intercorrelations of the 29-item FFMQ_SWE were analyzed to examine whether they constituted five meaningful facets in a Swedish sample. Table 2 presents Cronbach's alpha coefficients for the current study and for Baer et al. (2006).

Correlations between facets after item reuction. Correlations between facets were computed and compared with those of Baer et al. (2006), which was based on a sample of 613 undergraduate psychology students (mean age = 20.5 years; range = 18–57; 70% female). The majority of the correlation coefficients did not differ significantly from those of Baer et al. (Table 3).

Gender differences and age in relation to mindfulness scores. Gender differences were found in the Observing facet ($t = 3.17$; women: $M = 3.26$, $SD = 0.65$; men: $M = 3.06$, $SD = 0.70$) and Describing facet ($t = 3.60$; women: $M = 3.69$, $SD = 0.71$; men: $M = 3.45$, $SD = 0.71$). Women rated themselves higher than the men ($p < .01$). Mean

Table 3. *Intercorrelations: comparison of FFMQ (Baer et al., 2006) and FFMQ_SWE (current study; 29 items)*

Facet	Nonreactivity	Observing	Acting with Awareness	Describing	Nonjudging
Nonreactivity					
Baer et al. FFMQ	–				
FFMQ_SWE	–				
Observing					
Baer et al. FFMQ	.16	–			
FFMQ_SWE	.27	–			
Acting with Awareness					
Baer et al. FFMQ	.33	.15			
FFMQ_SWE	.05*	− .01*	–		
Describing					
Baer et al. FFMQ	.22	.26	.30	–	
FFMQ_SWE	.23	.21	.24	–	
Nonjudging					
Baer et al. FFMQ	.34	− .07	.34	.21	–
FFMQ_SWE	.16*	− .13	.42	.16	–
Global scale FFMQ_SWE	.59	.52	.54	.66	.53

Note. *$N = 495$ for current study and $N = 613$ for Baer et al. (2006). Results for the global scale were not given in Baer et al. FFMQ, Five Facet Mindfulness Questionnaire. *$p < .05$ (significantly different from Baer et al.).*

scores for each age category were analyzed. Significant age differences were found on all the facets as well as on the global scale ($p < .01$). The general tendency was that older participants obtained higher values than their younger counterparts. Post hoc comparisons indicated that the two youngest age groups (< 21 years and 21–24 years) differed from the other groups on Nonreactivity, Observing, Describing, and the global scale, obtaining lower values than the older age groups ($p < .05$).

Meditation experience and mindfulness. FFMQ scores were related to meditation experience: the more meditation practice, the higher the FFMQ scores ($p < .01$). The general picture indicated that participants with no meditation experience differed from those with "some" or "a lot" of experience. On the global scale the post hoc analysis indicated a linear trend regarding the relationship between self-reported mindfulness and meditation experience ($p < .05$).

Regression analysis. Meditation experience explained only an additional 2% to 3% of the variance in self-reported mindfulness, once the effects of age and gender were controlled for (Table 4). Age entered in Model 1 predicted levels of mindfulness in all five facets and the global scale, whereas meditation experience entered in Model 2 only predicted levels of mindfulness in three of the five facets and the global scale.

Discussion
Facet correlation. The aim of the present study was to assess and examine the psychometric properties of a Swedish translation of the FFMQ. Correlations among facets were compared with the results from the original study by Baer et al. (2006), and the majority of them did not differ significantly from the original study. In line with Baer et al. (2006), we found interfacet correlations to be low, suggesting that there are also five distinct subscales in the FFMQ_SWE. Internal consistencies were high (.75–.85) even after the elimination of 10 items, and correlations between facets were similar to those reported by Baer et al. (2006). We conclude that the 29-item FFMQ_SWE shows high content validity

and internal consistency (of the facets as well as the global scale), and it appears to be a potentially useful tool in measuring mindfulness in the Swedish population. The FFMQ_SWE (29 items) is also more user-friendly since it has fewer items overall and uses a more common language (i.e. fewer items with long statements) compared with the original 39-item version.

Age, gender, meditation experience, and levels of FFMQ. In terms of age, the general tendency was that older participants obtained higher values than their younger counterparts. Women scored higher than men on the Observing and Describing facets, but this might be due to age difference, as indicated by the linear regression analysis. Another Swedish study (Hansen et al., 2009), using the KIMS (Baer et al., 2004), also showed that women scored significantly higher than men on the Observing scale, indicating that a possible gender difference in this facet needs further attention. Falkenström (2009), who studied mindfulness in experienced mediators using the FFMQ and KIMS, found when testing the correlations between mindfulness subscales and meditation experience that only the correlation with KIMS Acting with Awareness subscale was close to significant, when controlling for age.

Regression analysis showed age to be the best predictor of levels of mindfulness. Meditation experience explained only 2% to 3% additional variance in all the facets and the global scale. How can this be explained? Previous research has shown that meditation experience is associated with levels of mindfulness (Baer, 2009; Brown & Ryan, 2003), but our results indicate that with age people experience themselves as more mindful, even without meditation practice. This finding supports the definition of mindfulness as a state that is available to everyone (Brown & Ryan, 2003). Hansen et al. (2009) also found that age correlated positively with Acting with Awareness and Nonjudging scales. In this study, age differences in self-reported mindfulness were most evident between participants younger than 25 years and the rest of the sample. Because the original FFMQ (Baer et al., 2006) was based on a sample of undergraduate students (mean age = 20.5

Table 4. *Hierarchical regression analysis predicting FFMQ scores (N = 487)*

Predictor variable	R^2	ΔR^2	B	$SE\ B$	ß
Nonreactivity					
Model 1	.07**				
Gender			.09	.06	.07
Age			.11	.02	.27**
Model 2	.09**	.02**			
Gender			.10	.06	.08
Age			.09	.02	.24**
Meditation experience			.10	.03	.15**
Observing					
Model 1	.06**				
Gender			− .14	.06	− .10*
Age			.08	.02	.20**
Model 2	.07**	.03**			
Gender			− .12	.06	− .09
Age			.07	.02	.16**
Meditation experience			.13	.03	.17**
Acting with Awareness					
Model 1	.03**				
Gender			− .01	.06	− .00
Age			.07	.02	.17**
Model 2	.03**	.00			
Gender			− .01	.06	− .01
Age			.08	.06	− .00
Meditation experience			− .02	.04	− .03
Describing					
Model 1	.07**				
Gender			− .16	.07	− .11*
Age			.10	.02	.22**
Model 2	10**	.03**			
Gender			− .14	.07	− .09*
Age			.08	.02	.18**
Meditation experience			.13	.04	.17**
Nonjudging					
Model 1	.04**				
Gender			.14	.08	.08
Age			.11	.02	.21**
Model 2	.04**	.00			
Gender			.14	.08	.08
Age			.11	.02	.21**
Meditation experience			− .00	.04	− .00
Global scale					
Model 1	.15**				
Gender			− .03	.04	− .03
Age			.09	.01	.38**
Model 2	.18**	.03**			
Gender			− .01	.03	− .01
Age			.08	.01	.34**
Meditation experience			.08	.02	.17**

*p < .05. **p < .01.

years), it would be interesting to see whether our findings related to age, gender, and meditation experience can be replicated in other cultures. These results indicate that there might be some sort of mindful wisdom that is incorporated in age, especially when younger then 25 years, regardless of meditation experience.

Study 2: confirmatory factor analysis

The purpose of the second study was to investigate the hierarchical five-factor structure that was shown by Baer et al. (2006) using CFA as well as the construct validity of the FFMQ_SWE (Pett, Lackey, & Sullivan, 2003). Several models were tested to see which one had the best model fit.

Method

Participants and procedures. The sample from Study 1 was used ($N = 495$). CFAs were conducted with the data from the 29-item FFMQ_SWE.

Data analysis. The CFA was carried out with AMOS 18, and the input was raw data stored in PASW 18. CFA was used to statistically test a hypothesized model (i.e. whether the Swedish data confirm the model) and thus also to test the cross-cultural validity of the model. To replace missing values, we calculated the mean value from the respondent's answer in the facet. We used three different fit indices for these analyses: the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and a normed chi-square test for discrepancy between the model and the data (Kline, 2005). The chi-square test is sensitive to sample size; thus, a desired nonsignificant value is more unlikely in large samples. Although there is no consensus as to what represents a good fit as regards the normed chi-square test, values less than 1.0 have been suggested as representing an overfitted model, whereas values greater than 2.0 or the more liberal upper limit of 5.0 indicate a poor fit (Kline, 2005). CFI values greater than .90 are considered to indicate a reasonably good fit between the data and the model. For the RMSEA, a value of .05 is considered a close fit and values up to .08 an acceptable fit

(Kline, 2005). In addition, a 90% confidence interval (CI) around the RMSEA value is reported. The modification index (MI) has been used for potential improvement. The MI is used to measure the reduction of the chi-square when a specific change in the model has been applied (Byrne, 2010).

Results

A hierarchical model of overall mindfulness with five first-order factors and 29 variables was tested. The model fit was only marginally adequate (CFI = .838, RMSEA = .062, CI = .058–.066, normed chi-square = 2.906). In addition, the pattern of the loadings indicated that the model was misspecified. The standardized loadings on the facets were as follows: Describing = .36, Acting with Awareness = .74, Nonjudging = .69, Nonreactivity = .24, and Observing = .05.

Because the Observing facet showed no significant loading (to the overall model), we finally tested a hierarchical model of overall mindfulness in which we excluded the Observing scale to see whether we could get a sound model and a better model fit. Hence, we tested a hierarchical model of overall mindfulness with the four first-order factors and 22 variables. This model indicated reasonably good fit (CFI = .887, RMSEA = .062, CI = .056–.068, normed chi-square = 2.897). The standardized loadings were as follows: Describing = .35, Acting with Awareness = .74, Nonjudging = .70, and Nonreactivity = .24. However, the MI indicated that the model fit could be improved if two correlated errors were applied between one pair of items (Items 2 and 32). This data-driven indication was combined with a theoretically driven evaluation of these two items. Items 2 and 32 are more general in nature compared with the other items included in the latent variable Describing. It was, therefore, reasonable to add correlated error terms in the model. When the model was respecified, the model fit was somewhat better (CFI = .905, RMSEA = .057, CI = .051–.063, normed chi-square = 2.612). The standardized loadings were as follows: Describing = .40, Acting with Awareness = .74, Nonjudging = .70, and Nonreactivity = .23 (see Figure 1). To sum up, the results in the current Swedish study
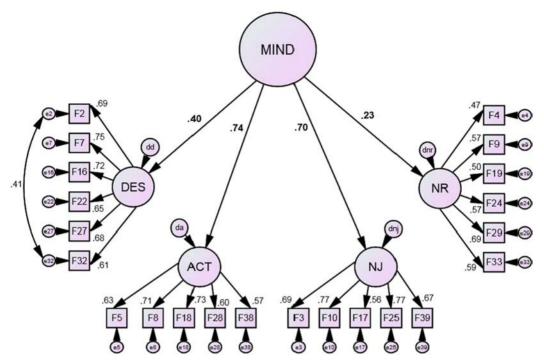
Figure 1. Final hierarchical model of mindfulness (standardized loadings) in a Swedish population with little meditation experience. All standardized loadings are significant ($p <$ .05). DES, Describing; ACT, Acting with Awareness; NJ, Nonjudging; NR, Nonreactivity; e, error terms; d, residual error term associated with each of the lower level latent variables.

were fairly similar to those presented by Baer et al. (2006).

Discussion

When testing the hierarchical five-factor model on the 29-item FFMQ_SWE, the results were similar to those of Baer et al. (2006), indicating that in a population with little meditation experience the Observing facet is not a part of a hierarchical five-factor model. Also in line with Baer et al. (2006), our results indicate that Describing, Acting with Awareness, Nonjudging, and Nonreactivity are facets of an overall mindfulness construct, at least in samples with little meditation experience.

How can these findings be explained? During the development of KIMS, Baer et al. (2004) reported a significant negative correlation between Observing and Nonjudging. They suggested that individuals with little meditation experience associated attending to experiences with judging them, which might explain why the Observing facet does not seem

to fit as an aspect of mindfulness among individuals without formal meditation practice. In a second study by Baer et al. (2008), the authors gathered data from experienced mediators and conducted a CFA. The results suggested a hierarchical five-factor model of mindfulness among individuals with meditation experience. They also found that the relationship between the Observing facet and psychological adjustments (well-being and symptoms) varied with meditation experience. In meditators higher scores were strongly associated with good adjustment, whereas in the nonmeditating samples the relation between the Observing facet and psychological adjustment was nonsignificant or negative.

The results from Study 1, which showed that meditation experience was related to the FFMQ (global scale) and the Observing facet (after controlling for age and gender), support the hypothesis that the ability to observe one's experience represents an important aspect of mindfulness that can be developed by practicing meditation. Moreover, the results from

the CFA (Study 2) show that the Observing facet is not a part of an overall mindfulness scale in a population with little meditation experience. To conclude, the degree of meditation experience is linked to the mean value of the Observing facet (Study 1) and the low association between the Observing facet and the overall mindfulness construct (Study 2). This is similar to Baer et al.'s (2006) findings in a population with little meditation experience and coincides with their finding in a population with meditation experience.

To sum up, this finding support the results from Baer et al. (2006, 2008) and the idea that people who practice meditation will develop new forms to observe and attend. It is the qualitative aspect—*how* you observe your thoughts, feelings, and so on—that meditation practice aims to cultivate, and only when respondents perceive the items in the Observing facet from that perspective (i.e. as observing experience in a nonjudgmental and accepting way; e.g. Baer et al., 2006) will they form part of a broader mindfulness concept.

Replicability of the model
Baer et al. (2006) used the so-called parcel technique when performing their CFA. They did not, however, report which items were included into each parcel. The decision to parcel or not depends upon which aspect of the CFA one is most interested in analyzing. One disadvantage with parceling is that it obscures the impact that the manifest variable has on the latent variable and, therefore, it is not possible for other researchers to fully replicate the study (Little, Cunningham, Shahar, & Widaman, 2002). The analysis in Study 1 resulted in the reduction of the FFMQ_SWE by 10 items. In our CFA, we were, therefore, more interested in the manifest variables and their relationship with the latent variables. Thus, we decided not to use the parcel technique. This enabled us to closely analyze how each item (i.e. manifest variable), as well as the reduction of items, affected the latent variable. Generally, even after the reduction, we found good correspondence between the current Swedish study and the study by Baer et al. (2006).

General conclusions
The purpose of this study was to examine the psychometric properties of the FFMQ in a Swedish sample and use the instrument to investigate the facet structure of mindfulness in comparison with the original findings by Baer et al. (2006). The Swedish FFMQ appears to be a potentially useful tool in measuring mindfulness in a Swedish population. It displays good psychometric properties, with internal consistency, reliability, construct validity, and correlations well in line with what has been presented earlier (Baer et al., 2006). In some ways, the 29-item FFMQ_SWE is an improvement since the psychometric properties have better fit and the instrument is more user-friendly, especially in clinical settings. We used a sample with a much broader age range compared with the original study by Baer et al. (2006), and we showed that age seems to be an important aspect to control for when studying the effects of meditation practice on self-reported mindfulness.

We used CFA to investigate the replicability of Baer et al.'s hierarchical five-factor model; results showed that the Observing facet is not a significant part of an overall mindfulness structure in a population with little meditation experience. Although there was no absolute replication of Baer et al.'s model, we found similar correlations when we tested the hierarchical five- and four-factor models, which indicate that the overall mindfulness structure is applicable in a Swedish population.

Limitations and future research
A methodological limitation in the current study is that we measured mindfulness in a population that had little meditation experience. It is quite possible that people who have never meditated or even heard of mindfulness may never reflect on how mindful or mindless they are in their daily lives. Brown and Ryan (2003), however, argued that because mindfulness is an innate, natural tendency for every human being, we all "know" deep down what it is to be mindful (p. 822), and based on the research showing that mindfulness meditation does increase awareness (Baer, 2009), developing measures of self-reported mindfulness seems worthwhile. Research on self-reported mindfulness should, however, always consider the possibility that those with no mindfulness meditation experience may score higher on

mindfulness than they would if they had become more aware of limitations in their mindfulness. Another restraint is that we did not ask the participants to state how many years they had practiced meditation. It was, therefore, not possible to make any deeper analysis of the impact of meditation experience. A limitation of the study that suggests a path for future work is that the shortened scale was not actually administered to new participants but rather was derived from the administration of the larger scale. This article addresses the importance of examining culture-specific reactions and culture-specific differences in response to a translated FFMQ. It seems interesting for future research to examine whether the reactions to the items by the Swedish participants are unique and culture specific, or whether they might be generalized to other cultures.

Acknowledgements

Note

1. The Swedish version is available upon request from Josefine L. Lilja.

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APPENDIX 1

Skatta följande påståenden genom att använda den bifogade skalan. Skriv den siffra på den tomma raden som stämmer bäst med din *egen uppfattning* om hur det *i allmänhet är för dig*.

1	2	3	4	5
Stämmer aldrig eller mycket sällan	Stämmer sällan	Stämmer ibland	Stämmer ofta	Stämmer mycket ofta eller alltid

_____ 1. När jag går, lägger jag med avsikt märke till hur det känns att röra kroppen.
_____ 2. Jag är bra på att hitta ord som beskriver mina känslor.
_____ 3. Jag kritiserar mig själv för att ha känslor som är irrationella eller olämpliga.
_____ 4. Jag lägger märke till mina känslor utan att behöva reagera på dem.
_____ 5. När jag gör saker vandrar mina tankar iväg och jag blir lätt distraherad.
_____ 6. När jag tar en dusch eller ett bad så är jag uppmärksam på upplevelsen av vatten på min kropp.
_____ 7. Jag har lätt för att sätta ord på mina uppfattningar, åsikter och förväntningar.
_____ 8. Jag är inte uppmärksam på vad jag gör, på grund av att jag dagdrömmer, oroar mig eller är distraherad på andra sätt.
_____ 9. Jag kan iaktta mina känslor utan att bli uppslukad av dem.
_____ 10. Jag säger till mig själv att jag inte borde känna som jag gör.
_____ 11. Jag lägger märke till hur mat och dryck påverkar mina tankar, känslor och hur det känns i kroppen.
_____ 12. Det är svårt för mig att hitta de rätta orden för att beskriva vad jag tänker.
_____ 13. Jag blir lätt distraherad.
_____ 14. Jag tycker att en del av de tankar jag har är onormala eller dåliga, och att jag inte borde tänka på det sättet.
_____ 15. Jag är uppmärksam på känselintryck, till exempel av vinden i mitt hår eller solen på mitt ansikte.
_____ 16. Jag har problem med att hitta de rätta orden för att uttrycka vad jag tycker om saker och ting.
_____ 17. Jag gör bedömningar av om mina tankar är bra eller dåliga.
_____ 18. Jag tycker att det är svårt att hålla kvar min uppmärksamhet på det som händer i nuet.
_____ 19. När jag har känslomässigt upprörande tankar eller inre bilder, tar jag "ett steg tillbaka" och är medveten om tanken eller bilden utan att överväldigas av den.
_____ 20. Jag är uppmärksam på ljud, som t ex klockors tickande, fågelkvitter och passerande bilar.
_____ 21. I svåra situationer kan jag stanna upp i stället för att reagera på en gång.
_____ 22. När jag känner något i kroppen är det svårt för mig att beskriva det, eftersom jag inte kan hitta de rätta orden.
_____ 23. Det är som om jag "går på automatik" utan att vara särskilt medveten om vad jag gör.
_____ 24. När jag har känslomässigt upprörande tankar eller inre bilder, blir jag lugn igen snart efteråt.
_____ 25. Jag säger till mig själv att jag inte borde tänka som jag gör.
_____ 26. Jag lägger märke till hur saker luktar och smakar.
_____ 27. Även när jag är fruktansvärt upprörd kan jag hitta ett sätt att uttrycka det i ord.
_____ 28. Jag hastar igenom aktiviteter utan att vara riktigt uppmärksam på dem.
_____ 29. När jag har känslomässigt upprörande tankar eller inre bilder kan jag lägga märke till dem utan att behöva göra något.
_____ 30. Jag tycker att en del av mina känslor är dåliga eller olämpliga och att jag inte borde känna dem.
_____ 31. Jag lägger märke till detaljer i konstverk och i naturen, som färger, former, eller mönster av ljus och skugga.
_____ 32. Det känns naturligt för mig att sätta ord på mina upplevelser.
_____ 33. När jag har tankar eller inre bilder som gör mig känslomässigt upprörd, noterar jag dem bara och släpper dem sedan.
_____ 34. Jag arbetar eller gör uppgifter automatiskt utan att vara närvarande i det jag gör.
_____ 35. När jag har känslomässigt upprörande tankar eller inre bilder, värderar jag mig själv som bra eller dålig, beroende på vad tanken eller bilden handlar om.
_____ 36. Jag är uppmärksam på hur mina känslor påverkar mina tankar och beteenden.
_____ 37. Jag kan vanligtvis beskriva ganska detaljerat hur jag känner mig i ett visst ögonblick.
_____ 38. Jag kommer på mig själv med att göra saker utan att vara uppmärksam.
_____ 39. Jag ogillar mig själv när jag har konstiga eller ologiska tankar.

Frågor som var svåra att förstå eller svåra att besvara ……… ……… _……… ………
……… _………..

Kommentarer: ……………………………………………………………………………………
Om Du behöver mer utrymme för kommentarer så skriv på baksidan av detta blad.