TABLE 2

Significant mediation of the effect of the independent variable Perceived Stress on the dependent variables Self-Esteem, Satisfaction with Life (SWL), Depression and Anxiety through integrative self-knowledge, self-control and mindfulness factors

| | Self-esteem | | | SWL | | | Depression | | | Anxiety | | |
| | | 95% CI | | | 95% CI | | | 95% CI | | | 95% CI | |
Mediator	β	Lower	Upper	β	Lower	Upper	β	Lower	Upper	β	Lower	Upper
Integrative Self-Knowledge (ISK)	−.149	−.195	−.109				.118	.074	.167	.165	.120	.215
Self-Control (SC)	−.092	−.129	−.059				.056	.022	.092			
ISK × SC				−.014	−.035	−.003						
NONR	.018	.005	.034							.049	.032	.072
OBS	−.015	−.030	−.005				.029	.016	.048	−.013	−.030	−.001
ACTA	−.038	−.063	−.015	−.068	−.109	−.036	.075	.050	.103			
DES	−.044	−.067	−.025	−.028	−.057	−.033	.032	.013	.055	.024	.003	.048
NONJ	−.009	−.021	−.001	−.014	−.032	−.003				.009	.002	.023
Total	−.326	−.385	−.271	−.147	−.211	−.085	.309	.255	.366	.248	.194	.304

Note. All analyses controlled for gender and age.

than ameliorate the effects of Perceived Stress on Self-Esteem. A similar amplification effect appeared for OBS in the analysis of Depression. All significant FFMQ correlations with psychological scales were in line with theoretical expectations, confirming that each dimension of mindfulness operationalized an adjusted form of self-functioning when examined alone. Amplification rather than the expected amelioration effects, therefore, presumably reflected intricacies in the dynamic interactions among these proposed self-regulatory processes. In addition, the NONJ factor did not correlate with DES and, perhaps most surprisingly, displayed a negative correlation with OBS. Overall, such findings confirmed the need to further examine complexities in mindfulness that have already appeared in the recent research literature (e.g., Feltman, Robinson, & Ode, 2009).

Failure of all FFMQ factors to correlate positivity with each other suggested some degree of independence in how at least some aspects of mindfulness function in Iran. Baer et al. (2006) similarly reported no positive correlation between OBS and NONJ in one of their American samples. A negative NONJ correlation with OBS and its weaker and less consistent relationships with the other psychological scales indicated that this factor in particular may need to be the focus of future Iranian research. Specifically, items in this factor may express problematic ideas within the Iranian Muslim cultural context. Two NONJ statements say, for example, "I tend to evaluate whether my perceptions are right or wrong" (reverse scored) and "I make judgments about whether my thoughts are good or bad" (reverse scored). Muslim beliefs in, for example, self-control might make it difficult for Iranians to self-report the mindfulness of NONJ by rejecting such claims. In short, future research should examine the religious implications of NONJ in Iranian Muslims.

Integrative Self-Knowledge proved to be an especially noteworthy self-regulatory process. Only this measure, alone or in interaction with Self-Control, displayed the expected mediation effects with all four dependent variables. Self-Control failed to be implicated in self-regulation only in the mediation of Anxiety. Additional studies clearly should analyse these two measures in further attempts to understand self-regulation. The one significant interaction between these two mediators did suggest that an especially self-insightful self-control might sometimes make unique contributions to self-regulation, but then again, the fact that only one such interaction proved to be significant also implied that any such contributions might be limited. That Integrative Self-Knowledge only sometimes interacts with Self-Control to produce significant effects was also apparent in the previous examination of Iranian religious and spiritual functioning (Ghorbani, Watson, Rezazadeh, & Cunningham, 2011).

Limitations and conclusions

Conclusions of this study must of course be conditioned by an awareness of its limitations. The focus of this investigation was on self-regulation broadly speaking, and statistical analyses consequently controlled for gender and age. Possible influences of these two controlled variables may be an important future research question.

In addition, the student research participants of this study were not representative of either the Iranian population or of other societies. In theory, the multi-process model of self-regulation should apply cross-culturally, and confirmation of that expectation will require testing in a broader range of cultural contexts. In such research, it presumably will be important to establish the measurement invariance of instruments across societies and not just across genders as was the case with the FFMQ in the present study. Previous findings have established the measurement invariance of the Integrative Self-Knowledge Scale across Iranian