Andrews University

Digital Commons @ Andrews University

Honors Theses

Undergraduate Research

2014

The Relationship Between Student Motivation, Resilience, and Parental Environment

Eliana Iller

Follow this and additional works at: https://digitalcommons.andrews.edu/honors

Recommended Citation

Iller, Eliana, "The Relationship Between Student Motivation, Resilience, and Parental Environment" (2014). *Honors Theses.* 85.

https://digitalcommons.andrews.edu/honors/85

This Honors Thesis is brought to you for free and open access by the Undergraduate Research at Digital Commons @ Andrews University. It has been accepted for inclusion in Honors Theses by an authorized administrator of Digital Commons @ Andrews University. For more information, please contact repository@andrews.edu.



Thank you for your interest in the

Andrews University Digital Library of Dissertations and Theses.

Please honor the copyright of this document by not duplicating or distributing additional copies in any form without the author's express written permission. Thanks for your cooperation.

J. N. Andrews Honors Program Andrews University

HONS 497 Honors Thesis

The Relationship Between Student Motivation, Resilience, and Parental Environment

Eliana Iller

3-31-14

Advisor: Melissa Ponce-Rodas & Karl G.D. Bailey

Primary Advisor Signature:_

Department: Behavioral Sciences

The Relationship Between Student Motivation, Resilience, and Parental Environment Eliana C. Iller

Andrews University

Author Note

Eliana C. Iller, Department of Behavioral Science, Andrews University.

Correspondence concerning this article should be addressed to Eliana C. Iller,

Department of Behavioral Science, Andrews University, 8488 E. Campus Circle Dr., Berrien

Springs, MI 49104. E-mail: iller@andrews.edu

Abstract

Does parental environment influence the relationship between resilience and student motivation for university students? The goal of this research is to better understand how student motivation and resilience are related to parental environment, distinguishing between parental involvement and parental conflict. Data was taken from 235 Andrews University students via online survey. The hypotheses were partially supported that parental involvement would be positively correlated to motivation and resilience while parental conflict was negatively correlated. The strongest correlation was found between resilience and identified academic motivation. Mediation analyses showed small to moderate effect sizes of parental conflict and parental involvement on this relationship.

The Relationship Between Student Motivation, Resilience, and Parental Environment
Does parental environment influence the relationship between resilience and student
motivation for university students? Parental involvement is a very influential factor in the
development of a child. Specifically, learning about how involved parents are in their child's life
is very important when attempting to understand what makes a child motivationally driven and
able to overcome adversity. By exploring this relationship among university students I hope to
expand upon previous research and discover if parental environment plays as big of a role among
university students as it does among younger aged students. I posit that there will be a positive
relationship between parental involvement and students' motivation and resilience; the more
involved the parents become the more the students will be motivated to complete tasks and do
well in school as well as being more able to overcome difficult obstacles. Also, I hypothesized
that there will be a negative relationship between parental conflict and motivation and resilience;
the more conflict in the relationship the less motivation and resilience the student will have.

Literature Review

Motivation has been studied in various ways among various settings, including the school system. When employing Self-Determination Theory, we see that there is a distinction between autonomous (intrinsic) motivation and controlled (extrinsic) motivation (Gagné & Deci, 2005). This theory concentrates on three psychological needs that are essential: competence, relatedness, and autonomy, all of which promote autonomous motivation (Deci, 1991).

Resilience is defined by Jacelon as a person's ability to "spring back" in the face of adversity (1997). A study by Zolkoski stated that resilient children have protective factors that allow them to overcome adversity and thrive (2012). Various factors are examined to see which factors influence resilient behavior. Benzies and Mychasiuk found that protective factors of

resilience include family structure and supportive parent-child interactions (2009). Healthy parent-child relationships have numerous and long-lasting effects on many aspects of a child's life.

However, there are a few aspects of parenting that need to be considered with respect to motivation. One specific study by Gonzalez-DeHass, Willems, and Holbein in 2005, revealed that parental monitoring of homework is sometimes perceived by their children as overcontrolling. Also, differences in parents' reactions relate to different motivational outcomes in the children. Rewards, such as money, that parents give for good grades relate to extrinsic motivation, while encouragement and praise relate to intrinsic motivation (Gonzalez-Dehass, et al., 2005). In this same study, Gonzalez-Dehass et al., explored possible explanations for the relationship between parental involvement and student motivation. Specifically the study discussed that parental involvement boosts students' perceived control and competence, parental involvement offers a sense of security and connectedness, parental involvement helps students to internalize educational values, and student motivation encourages parental involvement.

A study by Merchant, Paulson, and Rothlisberg in 2001, found that parental involvement consistently shows a positive influence on children's achievement. Deci found that children are more likely to maintain their intrinsic motivation for learning when significant adults are involved in an autonomy-supportive way. In fact, supportive relationships greatly influence students' perceptions of the importance of learning (Merchant, et al., 2001). Although previous literature has found results indicating an influence on motivation, research has focused attention on younger-aged students, specifically middle school students (Merchant, et al., 2001). In order to see if the same relationship is still influential as students get older, I am looking at a sample of university students to examine the extent to which it still holds true.

Methodology

Participants

My subjects came from the Behavioral Sciences Research Participation Pool. A total of 235 students took my survey from January to November 2013. Subjects in the pool were able to read a brief description about my study and decide whether they wanted to participate in the online survey. All participants were at least 18 years of age and received course credit for research participation for completing the survey.

Of the subjects 97 were male and 138 were female; participants ranged from 18 years of age to 43 years of age; 90 were undergraduate freshman, 78 undergraduate sophomores, 29 undergraduate juniors, 29 undergraduate seniors, 4 undergraduate 5-year seniors, 1 undergraduate 6+ year seniors, 3 graduate 1st year students, and 1 graduate 3rd year student; 70 Caucasian/White, 29 Hispanic/Latino, 47 Asian, 63 Black/African American, 2 Native Hawaiian or Other Pacific Islander, 13 Other, and 11 Multi-Racial.

Materials/Instruments

The survey began with a demographic questionnaire asking subjects to identify their age, gender, class standing and ethnicity. This questionnaire was followed by a parental environment questionnaire (Bailey et al., 2012), an academic self-regulation scale (Vansteenkiste et al., 2009), and lastly a resilience scale (Wagnild & Young, 1993).

Parental Environment. I used a scale modified by Bailey, Baltazar, and McBride, (2012). The questionnaire has one 6 question subscale that measures conflict and another 6 question subscale that measures involvement. The subject responds to the question as it applies to both their mother and their father. Each item is answered on a 4-point scale from 4 (definitely false) to 1 (definitely true). This questionnaire was revised from the original Parental Environment

Questionnaire (PEQ) developed by Elkins, McGue, and Iacono (1997), which was a 42-item scale created to assess the different aspects of parent-child relationships, including parental support, closeness, and conflict.

Motivation. The analysis of student motivation in this article is based on the self-determination theory, specifically using the Academic Self-Regulation Scale (Vansteenkiste et al., 2009). This questionnaire asks the participants to answer each item based on the question "Why are you studying in general?" It has 16 items and is scored on a Likert-scale from 1 (completely not important) to 5 (very important). The questions identify different types of motivation for the students, whether external, introjected, identified, or intrinsic. According to Vansteenkiste and colleagues, external motivation in this case means that students study because they are given external rewards and incentives such as money from others. Introjected motivation means that the belief for studying is taken in by the individual but it is not his or her own belief. Identified motivation means that the behavior is in line with personal goals and identities and reflects an aspect of the individual. In this instance, the student is studying because he or she sees it as valuable and important for future success. Lastly, intrinsic motivation to study comes from within the student himself or herself for the enjoyment of the task itself.

Resilience. I used the Resilience Scale developed by Wagnild and Young (1993). This is a 25-item questionnaire that uses a Likert-scale from 1 (strongly disagree) to 7 (strongly agree). Following the 25 items are seven questions regarding health habits (not analyzed here).

Procedure

My survey was available online, exclusively via the Behavioral Sciences Research Participation Pool website (http://andrews.sona-systems.com). When students login, they saw the title and a brief summary of the study that said, "(1 Credit) (Online Study)." Also shown to the

students is a short abstract and description of the study. If the student decided to participate they were directed to the survey website (www.cognopod.com/survey). Here they saw a consent form screen. When the student clicked the "submit" button, they agreed to participate in the survey. The survey took 20-30 minutes to complete. Once the subject finished the survey, they were asked to submit their answers. If done so, their responses were submitted and saved. There was no risk with any of the questionnaires being used and no personal identifiers were collected. See Appendix I for a description of the study that the students viewed online as well as the consent from.

Analysis

Frequencies and descriptive statistics on the data were analyzed using SPSS 21.

Correlations were explored between parental environment and motivation and resilience. Further analysis also examined the relationship between motivation and resilience. Mediation analyses with both mom and dad involvement and conflict as the mediators for the relationship between identified academic motivation and resilience were analyzed with MBESS 3.3.3 in R 3.0.2.

Results

Initial data analysis looked at the correlations between parental involvement and conflict with motivation and resilience. Results are shown below in *table 1*. Gender differences were examined among the variables in *table 2* to see if there would be any significant changes in the results and to further analyze possible different levels of influence that mothers and fathers have in their child's motivation and resilience levels.

Table 1.

		MOMconf	DADconf	MOMinv	DADinv
	Pearson Correlation	.080	.132 [*]	.005	.044
EXT	Sig. (2-tailed)	.222	.049	.935	.511
	N	234	222	234	223
	Pearson Correlation	.002	.113	.047	040
INTROJ	Sig. (2-tailed)	.980	.094	.475	.553
	N	234	222	234	223
	Pearson Correlation	285	230 ^{**}	.209	.090
IDENT	Sig. (2-tailed)	.000	.001	.001	.181
	N	234	222	234	223
	Pearson Correlation	135 [*]	076	.062	.090
INTRIN	Sig. (2-tailed)	.040	.263	.347	.179
	N	234	222	234	223
	Pearson Correlation	353	217"	139	.199
RESIL	Sig. (2-tailed)	.000	.001	.034	.003
	N	234	222	234	223

^{*.} Correlation is significant at the 0.05 level (2-tailed).

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Table 2.

	Gender			DADconf	MOMinv	DADinv
		Pearson Correlation	019	.237	018	020
EXT		Sig. (2-tailed)	.851	.023	.860	.847
		N	97	92	97	92
		Pearson Correlation	005	.104	122	056
	INTROJ	Sig. (2-tailed)	.959	.326	.233	.594
		N	97	92	97	92
		Pearson Correlation	267**	292**	.108	.110
Male	IDENT	Sig. (2-tailed)	.008	.005	.293	.295
		N	97	92	97	92
		Pearson Correlation	106	075	.009	.142
	INTRIN	Sig. (2-tailed)	.303	.474	.929	.176
		N	97	92	97	92
		Pearson Correlation	267 ^{**}	215	.305	.378 ^{**}
	RESIL	Sig. (2-tailed)	.008	.040	.002	.000
		N	97	92	97	92
		Pearson Correlation	.130	.059	018	.105
	EXT	Sig. (2-tailed)	.130	.504	.839	.234
		N	137	130	137	131
		Pearson Correlation	015	.105	.096	001
	INTROJ	Sig. (2-tailed)	.866	.233	.264	.990
		N	137	130	137	131
		Pearson Correlation	-,314	196 ˚	.266**	.088
Female	IDENT	Sig. (2-tailed)	.000	.025	.002	.317
		N	137	130	137	131
		Pearson Correlation	157	078	.088	.061
	INTRIN	Sig. (2-tailed)	.068	.378	.306	.488
		N	137	130	137	131
		Pearson Correlation	394**	211 [*]	.072	.087
	RESIL	Sig. (2-tailed)	.000	.016	.401	.326
		N	137	130	137	131

^{*.} Correlation is significant at the 0.05 level (2-tailed).

^{**.} Correlation is significant at the 0.01 level (2-tailed).

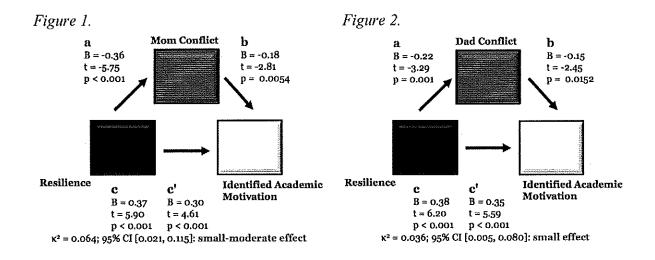
Further correlations were examined between motivation and resilience as shown in *table*3. The strongest correlation among these was found between identified academic motivation and resilience. In order the examine this relationship further, mediation analyses were done for parental conflict and involvement in order to determine how much of the shared variance in this relationship could be accounted for by the parental environment variable as a mediator. Preacher and Kelly (2011) explain mediation analysis and effect size measures (2011). Cohen (1988), defines effect sizes small, medium/moderate, and large as 0.01, 0.09, and 0.25. *Figures 1-4* show results of the mediation analyses indicating mostly small effect sizes with the exception of a small to moderate effect size for mom conflict in *figure 1*. Results show that overall effect sizes found were bigger for mom conflict and involvement than for dad conflict and involvement.

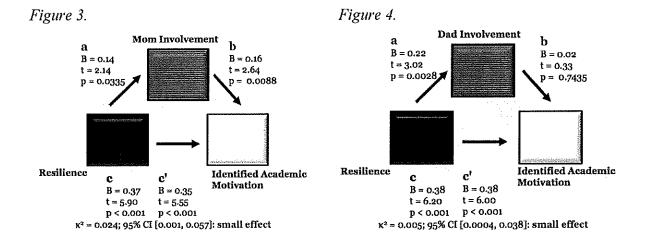
Table 3.

		EXT	INTROJ	IDENT	INTRIN
	Pearson Correlation	142 [*]	064	.360**	.319
RESIL	Sig. (2-tailed)	.029	.328	.000	.000
	N	235	235	235	235

^{*.} Correlation is significant at the 0.05 level (2-tailed).

^{**.} Correlation is significant at the 0.01 level (2-tailed).





Discussion

The hypotheses that parental conflict would be negatively correlated with motivation and resilience while parental involvement would be positively correlated with motivation and resilience were partially supported. Higher levels of parental environment were expected to correlate with certain types of motivation. According to Gagné & Deci, external regulation is a type of controlled motivation that would yield results based on contingencies of reward and punishment. Introjected regulation, a moderately controlled motivation, would produce results of self-worth contingent on performance and ego-involvement, while identified regulation, a moderately autonomous motivation, would demonstrate an importance of goals, values, and regulations. Lastly, intrinsic motivation is an inherently autonomous motivation, characterized by interest and enjoyment of the task (2001).

In terms of the four types of motivation for studying (external, introjected, identified, and intrinsic), significant correlations were mostly found with identified academic motivation. Using SPSS 21, Pearson correlation coefficients showed a significant negative correlation between identified academic motivation and mother conflict as -.285 (p = .01), with father conflict -.230 (p = .01), and mom involvement .209 (p = .01). As earlier hypothesized that parental

involvement and student motivation would be positively correlated, the results in this study demonstrate positive correlations between mom involvement and identified academic motivation, however, there was no significance found between dad involvement and motivation.

Correlations between parental environment and resilience were also examined. Data analysis showed significant correlations between resilience and all categories of parental environment with mom conflict as -.353 (p = .01), dad conflict -.217 (p = .01), mom involvement .139 (p = .05), and dad involvement .199 (p = .01).

When the cases were split by gender and the same correlations were conducted, the results yielded a slight variation of findings. In terms of male university students, mom involvement was no longer significantly correlated with identified academic motivation. In terms of resilience and parental environment for male students, mom involvement was significant as $.305 \ (p = .01)$ and dad conflict was only significant as $-.215 \ (p = .05)$. For female university students in terms of identified academic motivation, dad conflict was only significant as $-.196 \ (p = .05)$. Regarding resilience among female students, mom conflict was significant as $-.394 \ (p = .01)$ and dad conflict as $-.211 \ (p = .05)$.

Results were mostly congruent with previous research; however, there are some unique findings that need to be considered and explored even further. Conducting research with students enrolled at Andrews University can be seen as a limitation because variability in the parental environment variables is restricted. For example, it would be interesting to look into religion and beliefs and if these teachings also play a role in the level of motivation and resilience of the students. Also, one limitation of the subject pool is that the students taking the surveys are mostly underclassmen taking more general classes. It would be beneficial to get a more even distribution of students that are underclassmen and upperclassmen to conduct a more in-depth

analysis to see if parental environment mediates student motivation and resilience levels more or less from a first-year student to a graduating senior. Another limitation of the study was that there were more females than males that took the survey. When analyzing the data and splitting the cases by gender we see that females seemed to pull some of the results to one side. It would be ideal to get a more even number of males and females to take the study, but this is difficult when conducting an anonymous study online.

One aspect of the findings that needs further discussion is the role that fathers play in the life of their children. The problem is that relationships with fathers vary extensively in the literature; therefore the results are not consistent. While many hold that fathers' direct contact with children may cultivate warmer, more accepting relations with them, it is also possible that more time spent with children may open the door for more conflicted interactions. Fathers who were more frequently involved appeared to have more frequent conflicts and these conflicts became angrier over time (Almeida et al., 1991). An attempt to better understand the role of the father in the lives of adolescents is necessary. We can determine whether father-adolescent relations mediate the relation between father involvement and adolescent development. Since the overall pattern of results for the relation between dad involvement and conflict was not consistent, determination of the extent to which dad involvement relates to conflict anticipates more extensive and future research.

When analyzing correlations between resilience and the different types of motivation, the strongest correlation was found with identified academic motivation as .360 (p = .01). In order to examine how much of the variance could be explained by parental environment, four separate mediation analyses were conducted.

Mediation analyses showed mostly small effect sizes for parental conflict and involvement with the exception of a small to moderate effect size for mom conflict. Therefore, the relationship between resilience and identified academic motivation is mostly independent from parental environment, meaning there are other factors contributing to the shared variance between resilience and identified academic motivation that we do not yet know. Also, the fact that the relationship between resilience and identified academic motivation is mostly independent from parental environment may be influenced by the fact that we are using a sample of university students in this study who are all over 18 years of age and are in a stage of experiencing more freedom and separation from their parents back home. This is very normal and even encouraged. The main implication of this study is that parental environment does not play as strong of a role among university students as it does among middle school aged students when it comes to student motivation (Merchant, et al., 2001).

References

- Almeida, D. M., & Galambos, N. L. (1991). Examining father involvement and the quality of father-adolescent relations. *Journal of Research on Adolescence*, 1(2), 155-172.
- Bailey, K. G. D., Baltazar, A., McBride, D. C. (2012). A short form of the parental environment questionnaire for use with diverse young adults. Unpublished data, Andrews University, Berrien Springs, MI.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). New York, NY: Academic Press.
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education:

 The self-determination perspective. *Educational Psychologist*, 26(3-4), 325-346. doi:

 http://dx.doi.org/10.1207/s15326985ep2603&4_6
- Elkins, I. J., McGue, M., & Iacono, W. G. (1997). Genetic and environmental influences on parent–son relationships: Evidence for increasing genetic influence during adolescence. *Developmental Psychology*, 33(2), 351-363. doi: http://dx.doi.org/10.1037/0012-1649.33.2.351
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362. doi: http://dx.doi.org/10.1002/job.322
- Gonzalez-DeHass, A., Willems, P. P., & Holbein, M. F. D. (2005). Examining the relationship between parental involvement and student motivation. *Educational Psychology**Review, 17(2), 99-123. doi: http://dx.doi.org/10.1007/s10648-005-3949-7

- Jacelon, C. S. (1997), The trait and process of resilience. Journal of Advanced Nursing, 25: 123–129. doi: 10.1046/j.1365-2648.1997.1997025123.x
- Marchant, G. J., Paulson, S. E., & Rothlisberg, B. A. (2001). Relations of middle school students' perceptions of family and school contexts with academic achievement. *Psychology in the Schools*, 38(6), 505-519. doi: http://dx.doi.org/10.1002/pits.1039.abs
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models:

 Quantitative strategies for communicating indirect effects. *Psychological Methods*, 16(2), 93-115. doi:http://dx.doi.org/10.1037/a0022658
- Vansteenkiste, M., Sierens, E., Soenens, B., Luyckx, K., & Lens, W. (2009).
 Motivational profiles from a self-determination perspective: The quality of motivation matters. *Journal of Educational Psychology*, 101(3), 671-688. doi: http://dx.doi.org/10.1037/a0015083
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., & Brière, N. M. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52(4), 1003-1017. doi: http://dx.doi.org/10.1177/0013164492052004025
- Wagnild G., & Young H.M. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement 1*(2), 165-178.
- Williams, B., Williams, J., and Ullman, A. (2002). Parental involvement in Education (Research Report RR332). Department for Education and Skills.
- Zolkoski, S. M., & Bullock, L. M. (2012). Resilience in children and youth: A review.

 Children and Youth Services Review, 34(12), 2295-2303. doi:

 http://dx.doi.org/10.1016/j.childyouth.2012.08.009

Appendix I

Description of study that students saw:

This study examines the relationship between parental environment and student motivation and resilience. You will be asked to complete an anonymous survey about your academic motivation, resilience, and parental environment, as well as demographic information that will be paired to your questionnaire responses. The entire survey should take no more than 30 minutes to complete. You must be at least 18 years of age. *Please do NOT take this survey again if you have already taken it in previous semesters.

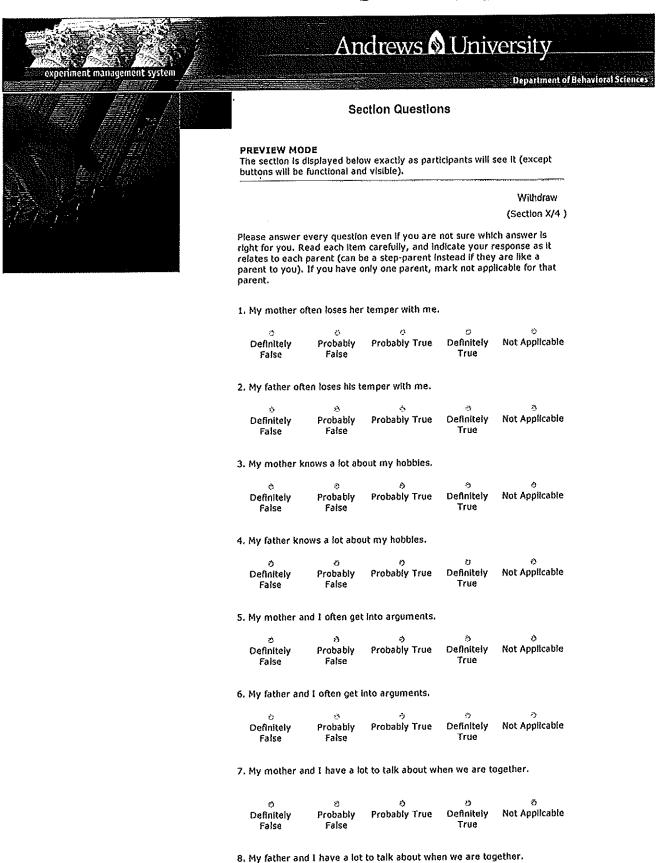
Consent form that students read before agreeing to take the survey:

The purpose of this study is to examine how student motivation and resilience are related to parental environment. You will be asked to complete an anonymous survey with four separate sections. You must be an Andrews student registered to participate in the Behavioral Sciences Research Participation Pool. Your answers will be kept completely anonymous. There will be no identifiers to match your responses back to you in any way. You must be at least 18 years of age to participate. Your participation in this study is completely voluntary. If you wish to quit at any time, you can exit out of the survey. If you do not click the "submit" button at the end of the survey, your responses will not be saved. If you do click the "submit" button, your answers and participation in the study will be saved. The findings of this study will be used in educational settings and possibly at professional conferences. The results could be published in a professional journal in the field of psychology. (Contact information was given here). By accepting these terms, you acknowledge that you have read this information and agree to participate in this research and may decide to remove yourself from this study at any time without penalty.

Appendix II Demographics Questionnaire

	Andrews 🐧 University
experiment management system	Department of Behavioral Sciences
	Section Questions
	PREVIEW MODE The section is displayed below exactly as participants will see it (except buttons will be functional and visible).
	Withdraw (Section X/4)
	Listed below are some demographic questions for this section of the survey. Please provide a response for every question.
	1. Age
	2. Gender
	や Male
	ੇ Female
	3. What is your class standing?
	ಲಿ Undergrad: Freshman
	[₼] Undergrad: Sophomore
	グ Undergrad: Junior
	○ Undergrad: Senior
	Undergrad: 5 year Senior
	♡ Undergrad: 6+ year Senior
	[®] Grad: 1st year
	© Grad: 2nd year
	ூ Grad: 3rd year
	[⊙] Grad: 4+ year
	4. What is your racial or ethnic background?
	리 Caucasian/White
	집 Hispanic or Latino
	ង Asian
	리 American Indian or Alaska Native
	트 Black or African American
	🖺 Native Hawallan or Other Pacific Islander
	^{II} Other
	Record Responses

Appendix III Parental Environment Questionnaire (PEQ)



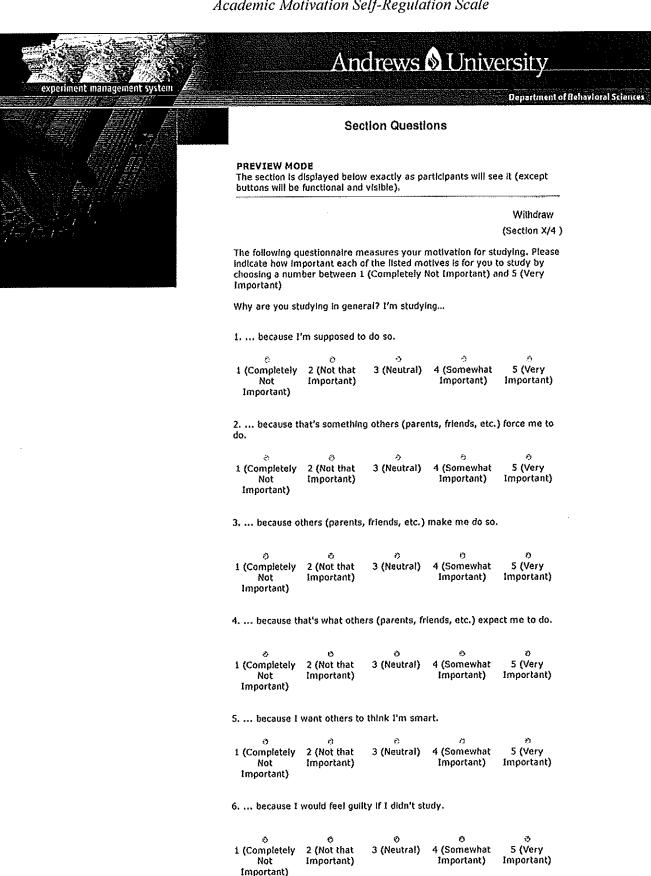
ं Definitely False	ं Probably False	ೆ Probably True	O Definitely True	ಿ Not Applicable					
9. My mother o	9. My mother often criticizes me.								
₹.	ð	<i>₫</i>	ð	©.					
Definitely False	Probably False	Probably True	Definitely True	Not Applicable					
10. My father o	10. My father often criticizes me.								
O Definitely False	Probably False	† Probably True	Definitely True	[⊕] Not Applicable					
11. I talk about	my concerns	and my experien	ices with my	mother.					
ं Definitely False	ಣ Probably False	e Probably True	් Definitely True	ි Not Applicable					
12. I talk about	my concerns	and my experien	ices with my	father.					
	Đ	Ö	<u>છે</u>	ð					
Definitely False		Probably True							
13. I often seer	m to anger or	annoy my mothe	r.						
© Definitely False	Probably False	⇒ Probably True	Definitely True	Not Applicable					
14. I often seer	n to anger or	annoy my father.	,						
ට Oefinitely False	ਹੈ Probably False	Probably True	O Definitely True	o Not Applicable					
15. I feel very	close to my m	other.							
ව Definitely False	Probably False	∌ Probably True	ව Definitely True	8 Not Applicable					
16. I feel very	close to my fa	ther.							
Oefinitely False	o Probably False	Probably True	o Definitely True	う Not Applicable					
17. My mother often hurts my feelings.									
Oefinitely False	ව Probably False	Probably True	∂ Definitely True	ಾ Not Applicable					
18. My father often hurts my feelings.									
ව Definitely Faise	ි Probably False	Probably True	∂ Definitely True	© Not Applicable					

19. I prefer to talk about my personal problems with my mother.

Not Applicable Definitely Probably Probably True Definitely False True False 20. I prefer to talk about my personal problems with my father. Definitely False Definitely Not Applicable Probably **Probably True** False 21. My mother often does not trust me to make my own decisions. Definitely Probably **Probably True** Definitely Not Applicable False False 22. My father often does not trust me to make my own decisions. Definitely Not Applicable Definitely Probably **Probably True** False 23. My mother and I do a lot of things together. Not Applicable Definitely Definitely Probably **Probably True** False False 24. My father and I do a lot of things together. ⊕ Definitely o Probably Definitely Not Applicable **Probably True** False False

Record Responses

Appendix IV Academic Motivation Self-Regulation Scale



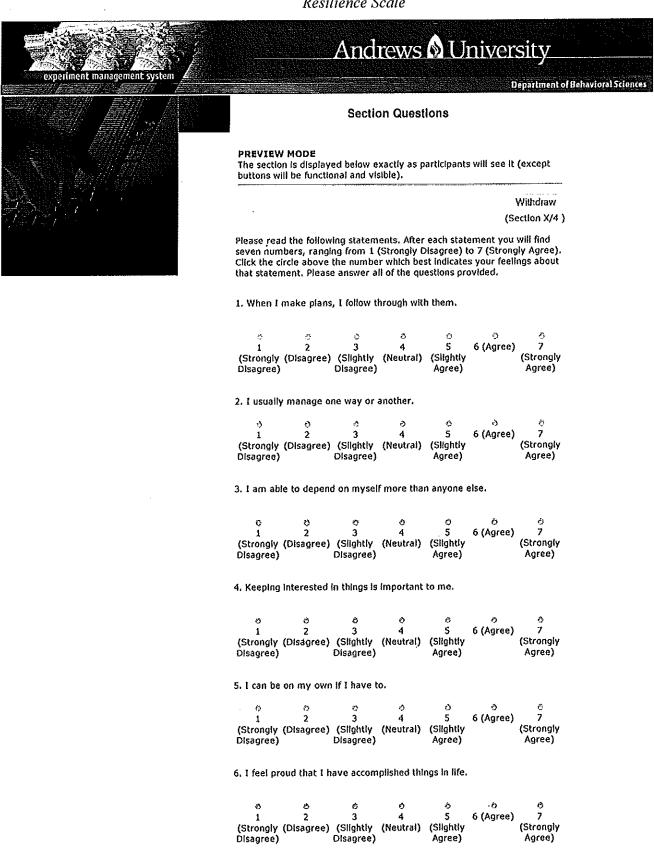
7. ... because I would feel ashamed if I didn't study. 4 (Somewhat 5 (Very 3 (Neutral) 1 (Completely 2 (Not that Important) Not Important) Important) Important) 8. ... because I want others to think I'm a good student. 0 3 (Neutral) 4 (Somewhat 5 (Very 1 (Completely 2 (Not that Important) Important) Not Important) Important) 9. ... because I want to learn new things. Ċ 2 (Not that 5 (Very 1 (Completely 3 (Neutral) 4 (Somewhat Important) Important) Not Important) Important) 10. ... because it is personally important to me. 2 (Not that 3 (Neutral) 4 (Somewhat 5 (Very 1 (Completely Important) Important) Important) Not Important) 11. ... because it represents a meaningful choice to me. 1 (Completely 2 (Not that 3 (Neutral) 4 (Somewhat 5 (Very Important) Important) Not Important) 12. ... because it is an important life goal to me. 4 (Somewhat 5 (Very 1 (Completely 2 (Not that 3 (Neutral) Not (important) Important) Important) Important) 13. ... because I am highly interested in studying. Ð 3 (Neutral) 4 (Somewhat 5 (Very 1 (Completely 2 (Not that Not Important) Important) Important) Important) 14. ... because I enjoy studying. ð 5 (Very 3 (Neutral) 4 (Somewhat 1 (Completely 2 (Not that Important) Not Important) (mportant) Important) 15. ... because it's fun. 5 (Very 2 (Not that 3 (Neutral) 4 (Somewhat 1 (Completely Important) Important) Not Important) Important)

16. ... because it's an exciting thing to do.

Office the second of the secon

Record Responses

Appendix V Resilience Scale



7. I usually take things in stride.

8	٥	0	0	ð	0	÷
1	2	3	4	S	6 (Agree)	7
(Strongly	(Disagree)	(Slightly	(Neutral)	(Slightly		(Strongly
Disagree)		Disagree)		Agree)		Agree)
R I am frie	ends with m	vself.				
o, i am me	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	, aciii				
35	<i>₹</i> 3	<u>~</u>	ð	*	ाँ	-0
i	2	3	4		6 (Agree)	
(Strongly	(Disagree)	(Slightly	(Neutral)	(Slightly		(Strongly
Disagree)		Disagree)		Agree)		Agree)
9. I feel th	at I can han	dle many t	hings at a	time.		
), t (cc) (iii	2017 1101.	,				
ð	∂	<u></u>	÷	<u>∂</u>	5 (4)	ე 7
1	2	3	4	5		(Strongly
	(Disagree)	(Slightly	(Neutrai)	(Slightly		Agree)
Disagree)		Disagree)		Agree)		Agreer
10. I am d	etermined.					
_					_	_
ð	∂	3	∂	₫	- 3 - 4 4 5 · · · · · · · · · · · · · · · · ·	2
1	. 2	3	4		6 (Agree)	
	(Disagree)	(Slightly	(Neutral)	(Slightly Agree)		(Strongly Agree)
Disagree)		Disagree)		Agree		Agi CO)
11. I seldo	m wonder v	vhat the po	int of it all	is.		
4	٥	Ô	Ø	Ċ,		0
1	2	3	4	5	6 (Agree)	
(Strongly	(Disagree)	(Slightly	(Neutral)	(Slightly		(Strongly Agree)
Disagree)		Disagree)		Agree)		valcel
12. T take	things one o	iav at a tin	ıe.			
12. I take	things one (iay at a tin	ıe.			
12. I take	things one o	8	¢)	ā		<u> </u>
∌ 1	છે 2	త 3	<0 4	5	6 (Agree)	7
එ 1 (Strongly	ి 2 (Disagree)	ප 3 (Slightly	∜ 4 (Neutral)	5 (Slightly	6 (Agree)	7 (Strongly
∌ 1	ి 2 (Disagree)	త 3	∜ 4 (Neutral)	5	6 (Agree)	7
එ 1 (Strongly	ి 2 (Disagree)	ප 3 (Slightly	∜ 4 (Neutral)	5 (Slightly	6 (Agree)	7 (Strongly
1 (Strongly Disagree)	2 (Disagree)	3 (Slightly Disagree)	4 (Neutral)	5 (Slightly Agree)	6 (Agree)	7 (Strongly Agree)
1 (Strongly Disagree)	ి 2 (Disagree)	3 (Slightly Disagree)	4 (Neutral)	5 (Slightly Agree)	6 (Agree)	7 (Strongly Agree)
(Strongly Disagree)	2 (Disagree)	3 (Silghtly Disagree) difficult tim	4 (Neutral) es because	5 (Slightly Agree) I've expe	6 (Agree) erienced dif	7 (Strongly Agree) ficulty
(Strongly Disagree) 13. I can g before.	2 (Disagree) et through	3 (Slightly Disagree) difficult tim	♦ 4 (Neutral) es because	S (Slightly Agree) I've expe	6 (Agree) erienced diff	7 (Strongly Agree) ficulty
(Strongly Disagree) 13. I can g before.	2 (Disagree) et through	8 3 (Slightly Disagree) difficult time	্ 4 (Neutral) es because ও 4	S (Slightly Agree) I've expe	6 (Agree) erienced dif	7 (Strongly Agree) ficulty o 7
(Strongly Disagree) 13. I can g before.	2 (Disagree) et through	Sightly Olsagree) difficult time 3 (Slightly	্ 4 (Neutral) es because ও 4	S(Slightly Agree) I've expe	6 (Agree) erienced diff	7 (Strongly Agree) ficulty o 7 (Strongly
(Strongly Disagree) 13. I can g before.	2 (Disagree) et through	8 3 (Slightly Disagree) difficult time	্ 4 (Neutral) es because ও 4	S (Slightly Agree) I've expe	6 (Agree) erienced diff	7 (Strongly Agree) ficulty 6 7
(Strongly Disagree) 13. I can g before.	2 (Disagree) et through	Sightly Olsagree) difficult time 3 (Slightly	্ 4 (Neutral) es because ও 4	S(Slightly Agree) I've expe	6 (Agree) erienced diff	7 (Strongly Agree) ficulty o 7 (Strongly
(Strongly Disagree) 13. I can g before. (Strongly Disagree)	2 (Disagree) et through	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree)	্ 4 (Neutral) es because ও 4	S(Slightly Agree) I've expe	6 (Agree) erienced diff	7 (Strongly Agree) ficulty o 7 (Strongly
(Strongly Disagree) 13. I can g before. (Strongly Disagree)	et through 2 (Disagree) et through 2 (Disagree) self-discipil	3 (Slightly Disagree) difficult time 3 (Slightly Disagree) ne.	र्थ (Neutral) es because o 4 (Neutral)	S (Slightly Agree) I've expe S S (Slightly Agree)	6 (Agree) erienced diff o 6 (Agree)	7 (Strongly Agree) ficulty o 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. 5 1 (Strongly Disagree) 14. I have	et through of 2 (Disagree) (Disagree) Self-discipling	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne.	ণ 4 (Neutral) es because ও 4 (Neutral)	S (Slightly Agree) I've expense of S (Slightly Agree)	6 (Agree) erienced diff O 6 (Agree)	7 (Strongly Agree) ficulty o 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have	et through 2 (Disagree) et through 2 (Disagree) self-discipli	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne.	্ 4 (Neutral) es because ও 4 (Neutral)	S (Slightly Agree) P I've expense of S (Slightly Agree)	6 (Agree) erienced diff o 6 (Agree)	7 (Strongly Agree) ficulty o 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have	et through de through de through de 2 (Disagree) self-discipili de 2 (Disagree)	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne.	es because 4 (Neutral) (Neutral)	S (Slightly Agree) Prive expension of the state of the s	6 (Agree) erienced diff O 6 (Agree)	7 (Strongly Agree) ficulty o 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have	et through de through de through de 2 (Disagree) self-discipili de 2 (Disagree)	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne.	es because 4 (Neutral) (Neutral)	S (Slightly Agree) P I've expense of S (Slightly Agree)	6 (Agree) erienced diff O 6 (Agree)	7 (Strongly Agree) ficulty o 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have	et through de through de through de 2 (Disagree) self-discipili de 2 (Disagree)	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne.	es because 4 (Neutral) (Neutral)	S (Slightly Agree) Prive expension of the state of the s	6 (Agree) erienced diff O 6 (Agree)	7 (Strongly Agree) ficulty 7 (Strongly Agree) 8 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have (Strongly Disagree)	et through de through de through de 2 (Disagree) self-discipili de 2 (Disagree)	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne.	es because 4 (Neutral) (Neutral)	S (Slightly Agree) Prive expension of the state of the s	6 (Agree) erienced diff O 6 (Agree)	7 (Strongly Agree) ficulty 7 (Strongly Agree) 8 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have (Strongly Disagree)	et through 2 (Disagree) et through 2 (Disagree) self-discipili 2 (Disagree)	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne.	es because 4 (Neutral) (Neutral)	S (Slightly Agree) Property of the state of	6 (Agree) erienced diff 6 (Agree)	7 (Strongly Agree) ficulty 0 7 (Strongly Agree) 8 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have (Strongly Disagree) 15. I keep	et through of the control of the con	3 (Slightly Disagree) difficult time 3 (Slightly Disagree) ne. 3 (Slightly Disagree) in things.	es because 4 (Neutral) (Neutral)	S (Slightly Agree) Prive expenses S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) ficulty 0 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have (Strongly Disagree) 15. I keep	et through de through de through de 2 (Disagree) self-discipil de 2 (Disagree) interested de 2	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things.	es because 4 (Neutral) (Neutral) 4 (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree)	7 (Strongly Agree) ficulty 0 7 (Strongly Agree) 0 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. 1 (Strongly Disagree) 14. I have 1 (Strongly Disagree) 15. I keep	et through of the control of the con	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things. 3 (Silghtly Disagree)	(Neutral) es because 4 (Neutral) (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have (Strongly Disagree) 15. I keep	et through of the control of the con	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things.	(Neutral) es because 4 (Neutral) (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) ficulty 0 7 (Strongly Agree) 8 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. 1 (Strongly Disagree) 14. I have 1 (Strongly Disagree) 15. I keep	et through of the control of the con	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things. 3 (Silghtly Disagree)	(Neutral) es because 4 (Neutral) (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. 5 1 (Strongly Disagree) 14. I have 6 1 (Strongly Disagree) 15. I keep 7 1 (Strongly Disagree)	et through 2 (Disagree) self-discipli 2 (Disagree) interested 2 (Disagree)	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things. 3 (Silghtly Disagree)	(Neutral) es because 4 (Neutral) (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. 5 1 (Strongly Disagree) 14. I have 6 1 (Strongly Disagree) 15. I keep 7 1 (Strongly Disagree)	et through of the control of the con	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things. 3 (Silghtly Disagree)	(Neutral) es because 4 (Neutral) (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) flculty 7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have (Strongly Disagree) 15. I keep (Strongly Disagree) 16. I can t	(Disagree) self-discipli 2 (Disagree) interested 2 (Disagree)	3 (Silghtly Disagree) difficult tim 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things. 3 (Silghtly Disagree) something	(Neutral) es because 4 (Neutral) 4 (Neutral) 4 (Neutral)	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) ficulty 7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree)
(Strongly Disagree) 13. I can g before. (Strongly Disagree) 14. I have 1 (Strongly Disagree) 15. I keep 1 (Strongly Disagree) 16. I can t	et through et through 2 (Disagree) self-discipil 2 (Disagree) interested 2 (Disagree)	3 (Silghtly Disagree) difficult time 3 (Silghtly Disagree) ne. 3 (Silghtly Disagree) in things. 3 (Silghtly Disagree) something	(Neutral) es because 4 (Neutral) 4 (Neutral) 4 (Neutral) to laugh at	S (Slightly Agree) S I've expenses S (Slightly Agree) S (Slightly Agree) S (Slightly Agree)	6 (Agree) erienced diff 6 (Agree) 6 (Agree)	7 (Strongly Agree) Ficulty 7 (Strongly Agree) 7 (Strongly Agree) 7 (Strongly Agree)

17. My belief in myself gets me through hard times.

1 2 3 4 5 6 (Agree) 7 (Strongly (Disagree) (Slightly Disagree) Disagree) (Slightly Agree) Agree) 18. In an emergency, I'm someone people can generally rely on.

1 2 3 4 5 6 (Agree) 7 (Strongly (Disagree) Cilightly (Neutral) (Slightly Disagree) Cisagree) Cisagree) Agree) Agree)

19. I can usually look at a situation in a number of ways.

1 2 3 4 5 6 (Agree) 7 (Strongly (Disagree) Clightly (Neutral) (Slightly Disagree) Clightly Disagree) Clightly Agree)

20. Sometimes I make myself do things whether I want to or not.

21. My life has meaning.

1 2 3 4 5 6 (Agree) 7
(Strongly (Disagree) (Slightly (Neutral) (Slightly (Strongly Disagree) Agree) Agree)

22. I do not dwell on things that I can't do anything about.

 Operation
 Opera

23. When I'm in a difficult situation, I can usually find my way out of it.

1 2 3 4 5 6 (Agree) 7 (Strongly (Disagree) Clightly (Neutral) (Slightly Disagree) Disagree) Agree) Agree)

24. I have enough energy to do what I have to do.

1 2 3 4 5 6 (Agree) 7
(Strongly (Disagree) (Slightly (Neutral) (Slightly (Strongly Disagree) Agree) Agree)

25. It's okay if there are people who don't like me.

26. I have felt depressed in the past 2 weeks.

<u>o</u> Never	্ত Sometimes	:	e Frequently	All the time				
27. I rate my he	ealth as generally:							
6 Excellent	ं Very Good	ੋ Good	ි Fair	9 Poor				
28. I am at my	28. I am at my ideal body weight: (+/- 5 pounds)							
	∂i Yes		ā No					
29. I exercise 30	O minutes or more	most	days					
	∜ Yes		5 No					
30. I eat a healt	hy diet most days	(with	S fruits/vegetable:	s)				
	r) Yes		⊖ No					
31. I use tabacc	31. I use tabacco products (smoke, chew, or dlp)							
	∜ Yes		э́ No					
32. I have few or no alcoholic drinks (*female: 1/day, male: 1 or 2/day)								
	é Yes		o No					
	Recor	d Resp	onses					

Email questions to kgballey@andrews.edu Copyright © 1997-2013 Sona Systems Ltd.