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Improving Psychological Well-Being of Young Adults by Conducting Family History Research at a Religious University

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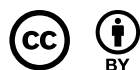
Abstract: Prior research suggests that knowledge of one's family is correlated with, but does not produce, psychological well-being. We test this conjecture, by examining whether participating in family history research (i.e., genealogical research) is associated with psychological well-being above and beyond the effects of knowledge of one's family, documented in prior research. To test this, we examine whether students enrolled in a university level family history course, improve in family identification, self-esteem, anxiety, resilience, and locus of control more than a control sample. For students enrolled in the family history course, we find an increase in family identification, which in turn leads to improvements in each of these areas of psychological well-being. Direct effects of being in the family history course show improvements in self-esteem of 8% and reductions in anxiety of 20%. In follow-up tests we examine which aspects of genealogical research are associated with measures of psychological well-being and find that researching genealogical records (e.g., examining census records) is associated with greater self-esteem and reduced anxiety but that posting memories about families and expanding one's family tree do not have the same relation with measures of psychological well-being.

Introduction

Prior research finds an important association between knowledge of family history and measures of psychological well-being, including, self-esteem, locus of control, family functioning, family traditions, and anxiety for adolescents and children.¹ The authors of this research state, "If simply knowing family history could make for better states of well-being and improved prognoses, some might propose (tongue in cheek) that we simply teach people various facts about their families as part of clinical treatment. Clearly, this approach would not work! Rather, it is our belief that knowledge of family history reflects certain processes that exist in families whose members know their histories." Although the authors surmise that "simply knowing family history" is not sufficient to produce psychological well-being, they do not test this conjecture. Based on social identity theory, we revisit this conjecture and specifically test whether knowing about one's family and performing family history work can produce psychological well-being. We define family history work to include performing genealogical research such as examining original records (like census records or birth certificates) and adding missing family members to family trees, as well as preserving memories of ancestors.

Identifying ways to improve psychological well-being is important given the number of people challenged in this area. The Anxiety & Depression Association of America (ADAA) reports that anxiety is the most common mental illness in the United States affecting 40 million adults, or 18.1% of the population every year.² Estimates of self-esteem vary widely, but all suggest there are large challenges with self-esteem, especially among women.^{3,4} It is concerning that low self-esteem is linked to a host of negative behaviors, including suicide, anxiety, unhappiness, eating disorders, delinquency, substance abuse, and depression.^{5,6,7,8,9} Clearly, many individuals could benefit from learning ways to improve their psychological well-being.

We suggest that doing family history is one way to enhance psychological well-being that is relatively easy, accessible, and is applicable to all humans—we all have a family history. For example, FamilySearch.org the largest, free family history website in the world, produces content in



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more than 30 languages and reports that as of 2020, the website received 207 million visits and contributors added nearly 100 million relatives to the worldwide family tree that now has 1.3 billion people represented. In addition, users connected 300 million historical record sources from their own family records or records in online collections, to deceased relatives in the collaborative Family Tree. FamilySearch.org now offers free access to 8.3 billion historical records and many shared memories of deceased ancestors.¹⁰ Given the widely available, free accessibility of this and other websites, if family history research can improve psychological well-being it is a relatively easy way to help individuals, families, clinicians, and others.

Prior research helped guide our investigation. Specifically, there is a rich literature showing that family stories are an important mechanism for well-being.^{11,12,13,14} As noted by Fivush, Bohanek, and Duke (2008), learning about others through stories helps us in two ways: “First, incorporating others’ perspectives on those experiences enriches understanding of our own past experiences; when we share experiences in reminiscing, we construct a more nuanced and more subjective perspective on our own past. Second, and perhaps more intriguing, hearing the experiences of others changes our perspective of our self. Stories of the past that we did not experience still provide powerful models, frameworks, and perspectives for understanding our own experiences.”¹⁵ While these authors were discussing the benefits of sharing stories, we believe these results will also apply to learning through doing family history. We build off this idea that learning about others, specifically our deceased family members, can help us learn more about ourselves.

We postulate that participating in family history will enhance psychological well-being by enhancing group identification of the researcher with his or her family, both living and deceased (i.e., family identification). Social identity theory hypothesizes that belonging to groups is a critical component of one’s identity and that a sense of social identity can give purpose and meaning to life.^{16,17} Specific to psychological well-being, research has shown that strong group identities are associated with positive self-esteem.¹⁸ This is particularly true for family identification—the greater the individual identifies with the family the greater their self-esteem.¹⁹

Positive self-esteem has also been shown to relate to other measures of psychological well-being, including reductions in anxiety, an increased internal locus of control, and increased resiliency.^{20,21,22,23,24,25,26} Thus, strong group identities can enhance psychological well-being by enhancing self-esteem, which in turn reduces anxiety, creates an increased internal locus of control, and increases resiliency.

The family is a particularly important group within social identity theory. Social identity theory suggests that individuals are motivated to achieve positive distinctiveness—meaning the individual is distinct from others in positive ways.²⁷ The less permeable group membership is, and family is essentially impermeable except by marriage or adoption, the more that group can bestow distinctiveness on an individual. Then, the individual can use social creativity strategies to enhance the perceptions of that group.^{28,29} Social creativity strategies include doing things to increase the perception of the group such as changing the dimension on which you are comparing, changing negative attributes into positive attributes, downplaying negative attributes, or changing the relevant comparison group.^{30,31,32,33,34,35,36} Anecdotally, many are likely familiar with talking about one’s ancestors with others and the discussion turning into a game of one upmanship for who’s ancestors are believed to be superior (i.e., I’m related to this famous person...countered with I’m related to an even more famous person). Thus, we argue that knowing about one’s ancestors can enhance one’s feeling of a positive identity, bestowing on an individual greater psychological well-being through the medium of positive distinctiveness.

While knowing about one’s ancestors likely bestows some of the benefits of social identity theory, doing research to find out about one’s ancestors likely engrains the family knowledge deeper into one’s sense of self. All people have multiple social identities: family, work groups, ethnic groups, religious groups, etc. Each of these groups can provide social identity, but identities related to groups that are most important (i.e., identity centrality) are most likely to be activated and influence behavior.^{37,38,39,40} We expect that individuals who participate in family history increase the salience and importance of the family identity. Thus, the family identity is more likely to be activated for those who participate in family history and thus bestow positive identity on these individuals.

Method

Participants

Participants were students at a religious university. Participants consented to participation online before continuing and the study was approved by the authors’ institutional review board (IRB). This unique group is advantageous for study as some students participate in family history given the religion’s focus on family history. Especially important is each participant had a FamilySearch.org account that tracks family history contributions (data is tracked whether they have actively participated in research or not). Thus, using this population allows us to disentangle the effects of family knowledge and family history participation on psychological well-being. We sampled two groups of participants, (1) 145 students enrolled in an introductory family history course and (2) 111 student volunteers from many different non-family history course.

We did not exclude any students enrolled in sampled courses from participation, and we included all responses that provided complete data. The family history course was the introductory course on this topic and was taught by three different professors. Students in all classes were offered extra credit for participating in the study. A total of 256 students provided pre/post data (with 18 additional completing the pre-test but not the post-test). Within this group, 59% were female, the average age was 21.1 (stdev = 1.9), with 16.8% (stdev = 0.4) of respondents being married, and 51.1% (stdev = 0.5) of the respondents being freshman or sophomores.

Procedure

We invited participants to complete the study via email during the fall semester of 2021. Students clicked on an anonymous link that took them to a Qualtrics survey. After giving informed consent, participants answered questions, including questions about their participation in family history. The initial survey was conducted during the first two weeks of the semester. The last week of the semester, participants were again sent an anonymous link and asked to fill out the same survey. We matched the responses by having students provide a unique, but private, identifier.

Our treatment variable was whether the students were enrolled in the beginning family history course or not. The family history course taught students introductory methods for conducting family history research, including evaluating family history information, conducting family history research in historic records found in online repositories (e.g., Ancestry.com), analyzing evidence found in original documents, and providing source documentation so that others know where the information was obtained.

Measures

We use the same measure of family knowledge as used in previous research which measures family knowledge using 20 yes-or-no questions about a person's family.⁴¹ We measure family history participation in two ways. Our primary measure is the treatment effect of participation in the family history course. As a secondary measure, we capture participants performance in family history as measured by the FamilySearch.org website. This website measures three variables related to family history participation: how many sources (historical documents) participants have attached to the global family tree, how many names people have added to the global family tree, and how many memories (i.e., stories, sound clips, photos, etc.) individuals have attached to individual people on the global family tree. The website records the number for each of these contributions and then presents an overall contribution that sums the three individual contributions together by year.

Table 1. Variable Descriptions.

Variable	Description
Age	The reported age of the participant.
Anxiety	The 38-question Taylor Manifest Anxiety Scale (Taylor 1953). Questions are true and false questions with scores ranging from 0 to 38. Higher scores indicate greater anxiety.
Family History Course	A dichotomous variable equal to 1 if the participant indicates being in or having been in a family history course and 0 otherwise.
Family Identification	A four-item scale measuring how much participants identify with their family (Sani, et al. 2012). Questions are answered on seven-point agree/disagree scales. Scores range from 4 to 28. Higher scores indicate greater identification with one's family.
Family Knowledge	Twenty Yes/No questions used by Duke et al. (2008) to measure how much participants know about their family. Scores can range from 0 to 20 with higher scores indicating greater knowledge about families.
FS Added People	The total number of new individuals that participants have added and connected to people on the Family Tree on FamilySearch.org family history website. An example of adding a person is creating a new profile page for a deceased grandparent. The natural log of one plus the number of people added is used in the analyses.
FS All Contributions	The total number of contributions made to the FamilySearch.org family history website. This is the sum of the three variables, FS Attached Sources, FS Posted Memories, and FS Added People. The natural log of one plus total contribution is used in the analyses.
FS Attached Sources	The total number of sources that participants have attached to people on the FamilySearch.org family history website. An example of attaching a source is connecting a census record, birth certificate, or similar digitized historical document to an individual's personal page. The natural log of one plus the number of attached sources is used in the analyses.
FS Posted Memories	The total number of memories that participants have attached to people on the FamilySearch.org family history website. An example of adding a memory is recording an image or uploading a photo and connecting it to a person's individual page. The natural log of one plus the number of posted memories is used in the analyses.
Locus of Control	The 29-question locus of control scale developed by Rotter (1966). Scores range from 29 to 58. Higher scores indicate a more external locus of control, lower scores indicate a more internal locus of control.
Male	A dichotomous variable equal to 1 if the participant indicates male gender and 0 if indicates otherwise.
Married	A dichotomous variable equal to 1 if the participant indicates being married and 0 if not married.
Resilience	The 4-item scale Brief Resilient Coping Scale (BRCS) developed by Sinclair and Wallston (2004). The BRCS is designed to capture tendencies to cope with stress in a highly adaptive manner. Questions are answered on a five-point scale about how well an item describes the participant. Scores range from 4 to 20 with higher scores indicating greater resilience.
Self-Esteem	The 10-question self-esteem scale developed by Rosenberg (1965). The scale measures both positive and negative feelings about the self. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. Scores can range from 4 to 40. Higher scores indicate higher self-esteem.
Lower-Division	A dichotomous variable equal to 1 if the participant indicates being a freshman or sophomore and a 0 if not.

We measure other key variables using previously well validated scales. Full details about each measure are included in [Table 1](#). We measure family identification using the four-item family identification scale.⁴² We measure psychological well-being using validated scales for self-esteem, anxiety, locus of control, and resilience.^{43,44,45,46}

On the 20-point family knowledge scale, the average score was 14.4 (stdev = 7.0). In terms of prior family history experience based on measures captured by FamilySearch.org, the average number of sources individuals had attached to family trees was 57.1 (stdev = 248), number of memories posted to the family tree was 3.9 (stdev = 13.8), and the number people added to family trees was 8.8 (stdev = 31.2).

Results

[Figure 1](#) shows the change in the measures of psychological well-being for participants in our sample. We find that participants who took a family history course significantly increased their identification with their family ($m=0.95$, $std=2.16$, $p\text{-value} < 0.01$), increased their self-esteem ($m=2.43$, $std=6.41$, $p\text{-value} < 0.01$), decreased their anxiety ($m=-3.94$, $std=8.92$, $p\text{-value} < 0.01$), and an unexpected decrease in resiliency ($m=-0.63$, $std=2.44$, $p\text{-value} < 0.01$). More importantly, when we compare the pre/post scores of participants in the family history course with scores of participants who did not take a family history course, we find that those in the family history course had significantly larger increases in family identification ($m=1.01$, $std=1.72$, $p\text{-value} < 0.01$) and self-esteem ($m=2.35$, $std=5.39$, $p\text{-value} < 0.01$) and a significantly larger decrease in anxiety ($m=-3.44$, $std=7.64$, $p\text{-value} < 0.01$).

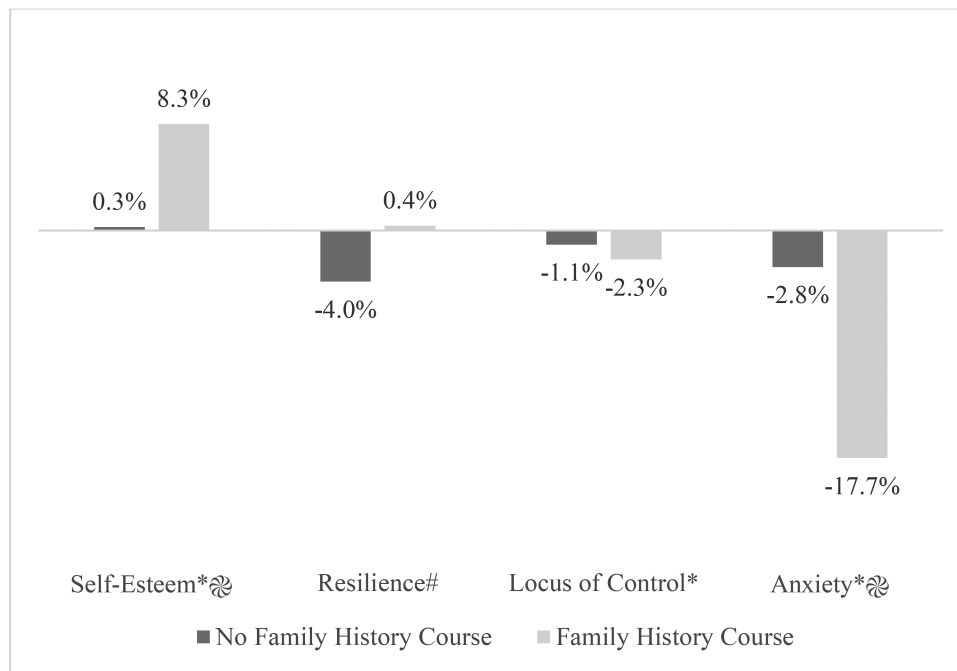


Figure 1. Percentage Change in Measures of Psychological Well-Being for Young Adults Taking or Not Taking a Family History Course.

[Figure 1](#) notes: The * or # in the x-axis label indicates statistical difference from 0 at the $p\text{-value} < 0.05$ level for those in the family history course or not in the family history course, respectively. The @ shows statistical differences between groups at the $p\text{-value} < 0.05$ level.

[Figure 2](#) shows the model that we tested for the effect of the family history course and family history knowledge on the measures of family identification and psychological well-being. Testing shows significant effects of both the family history course and family history knowledge measures on psychological well-being. Standardized indirect effects of family history course show significant effects on self-esteem (effect=0.09; $t=3.12$; $p<0.01$), locus of control (effect=-0.03; $t=-1.67$; $p<0.05$), and anxiety (effect=-0.08; $t=-2.24$; $p<0.01$). Similarly, standardized indirect effects of family history knowledge show significant effects on self-esteem (effect=0.06; $t=2.21$; $p<0.05$), locus of control (effect=-0.04; $t=-1.85$; $p<0.05$), and anxiety (effect=-0.09; $t=-2.65$; $p<0.01$). Thus, the data suggests both taking a family history course and greater family history knowledge have independent effects on psychological well-being by increasing family identification.

We note the model fit statistics were $\chi^2(6) = 19.3$, $p\text{-value} < 0.01$, AGFI = 0.880, RMSEA 0.111. These model fit indices indicate somewhat poor model fit. Although the model fit is weak, the direct effect tests (discussed with [Figure 1](#)) show the effects exist for family history research,

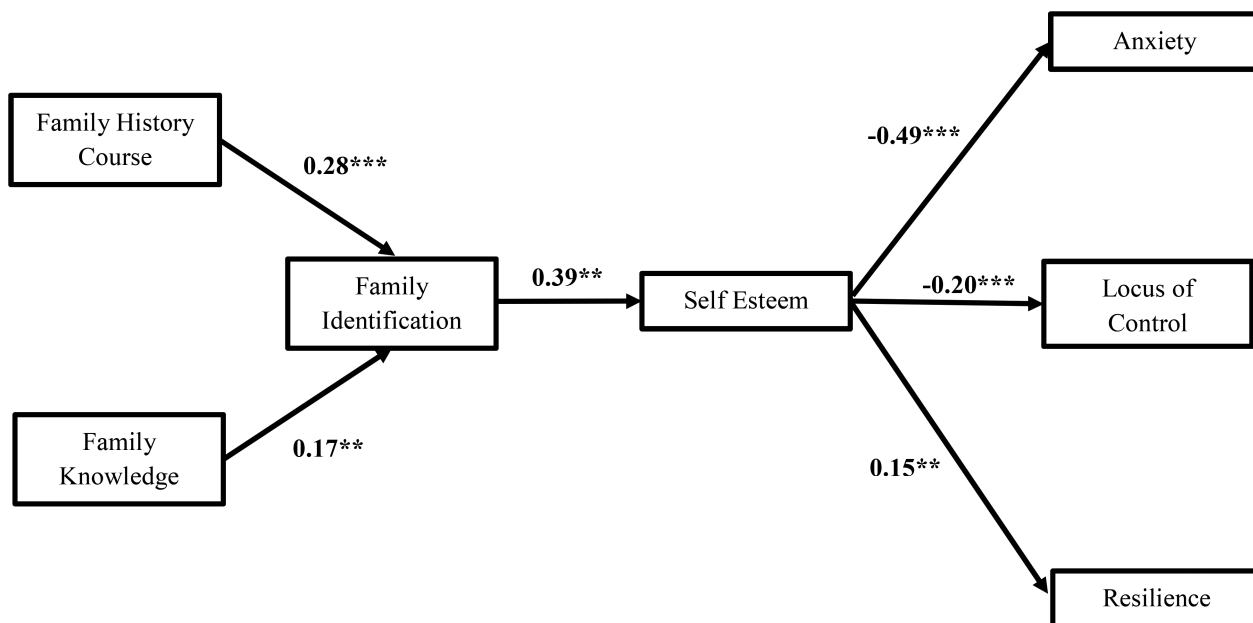


Figure 2. Modeling of Effects of Family History and Family Knowledge on Measures of Psychological Well-Being.

Figure 2 Notes: The numbers are standardized coefficients. ***, **, * indicate p-values statistically significant at the 0.10, 0.05, and 0.01 levels respectively. Variables are defined in Table 1. Each variable other than Family History Course is the difference in the pre-test and post-test measures.

the question is whether the mechanism of identification is the best explanation for why we observe the direct effects. To test the robustness of our results, we drop each final measure of psychological well-being individually, testing using various alternative fitting techniques other than maximum likelihood, (i.e., weighted least squares, unweighted least squares, full information maximum likelihood, generalized least squares, robust estimation with maximum likelihood, and asymptotically distribution-free method). Our results are inferentially similar based on any of these techniques. We also provide the supplementary analysis based on various measures of family history research participation (discussed subsequently). Given our results are robust to all these alternatives, we believe the somewhat poor model fit is not biasing our results and that increases in family identification are an important explanatory factor in our results, but likely not the only explanatory factor.

We provided additional testing by examining all the data related to the evaluations at the beginning of the semester where we measured specific individual types of family history contributions. Table 2 shows correlations for the family knowledge measures and the combined and individual measures of family history with the measures of psychological well-being. The correlations show only one significant correlation with the measure of family knowledge (resilience: $r = 0.144$, p -value < 0.05) but that the family history measure of attaching genealogical source materials to individual ancestors is significant and is positively associated with self-esteem ($r = 0.175$, p -value < 0.01) and negatively correlated with anxiety ($r = -0.177$, p -value < 0.01). We verify these univariate results using multiple regression and find the same pattern of results for the measures of family history contribution after controlling for family knowledge and various demographic characteristics (i.e., gender, age, marital status, year in school). The results for these regressions are presented in Table 3.

Table 2. Spearman Correlations.

Variables	FamilySearch.org Measures			
	Duke et al. Measure of Family Knowledge	Attached Sources	Posted Memories	Added People
Self-Esteem	0.048	0.175***	0.057	0.067
Locus of Control	0.038	0.094	0.061	0.053
Anxiety	0.045	-0.177***	-0.047	-0.078
Resilience	0.144**	-0.013	0.034	0.03

Table 2 notes: Spearman correlations are reported with ***, **, * indicating two-tailed p-values statistically significant at the 0.01, 0.05, and 0.10 level, respectively. Variables are defined in the Table 1.

Table 3. Regression Results for Separate Components of FamilySearch Contributions.

Variable	Self-Esteem		Locus of Control		Anxiety		Resilience	
	B	t-value	B	t-value	B	t-value	B	t-value
Family Knowledge	0.05	1.12	0.01	0.64	0.02	0.31	0.04	2.18**
FS Attached Sources	0.73	3.08***	0.16	1.56*	-1.14	-3.31***	-0.10	-0.97
FS Posted Memories	-0.11	-0.37	0.03	0.26	0.42	1.00	0.07	0.56
FS Added People	-0.65	-1.86*	-0.11	-0.74	0.92	1.82**	0.25	1.61*
Male	0.43	0.69	0.02	0.09	-3.5	-3.89***	0.55	1.96*
Age	0.16	1.60	-0.07	-1.71*	-0.27	-1.88*	-0.05	-1.11
Married	2.91	3.16***	0.49	1.26	-1.65	-1.23	0.4	0.97
Lower-Division	1.26	1.85*	-0.04	-0.13	-2.52	-2.52**	0.3	0.96
Intercept	24.67	11.17***	13.34	14.21	25.48***	7.92***	16.3	16.36***
Adj R-Squared	0.08		0		0.12		0.02	

Table 3 notes: Individual regressions are computed for each dependent variable. ***, **, * indicates two-tailed p-values statistically significant at the 0.01, 0.05, and 0.10 level, respectively. Variables are defined in Table 1.

Discussion, Limitations, and Future Research

In this study we examine whether learning about and participating in family history work has an independent effect on psychological well-being than knowing about one's family. We find that participating in a family history course increases family identification, which in turn increases self-esteem, decreases anxiety, increases resilience, and leads to a more internal locus of control. This effect is independent of knowledge about one's family—which has its own significant effect on family identification and the measures of psychological well-being.

We corroborate the effects of completing a family history course by using direct measures of participation in family history activities. The results show that greater participation in family history, especially identifying historical records of ancestors, is associated with increases in self-esteem and a reduction in anxiety. However, the results do not confirm the effects on resilience. Thus, we encourage future research on the relation with resilience.

Particularly important is that we find these effects in two different tests: (1) a longitudinal test that uses students' participation in a family history course as a treatment effect and (2) a cross-sectional test using direct measures of how much participants participate in various family history activities on a popular family history website. These later findings suggest that family history work involving learning about one's ancestors through historical records is the driving force behind our results and not just learning family memories.

These results stand in contrast to the conjecture put forth by prior scholars that learning about one's family cannot be the reason they observe positive psychological well-being outcomes. Indeed, we show that knowing about one's family *and* participating in family history are *both* associated with better psychological well-being. Thus, our results do not contradict the findings of previous research on family knowledge and other studies that show knowing family narratives improves self-esteem and well-being and reduces behavioral problems, rather our results expand these findings to suggest that an independent, complimentary way to improve psychological well-being is conducting family history—especially examining records related to ancestors.^{47,48,49,50} Furthermore, the effect sizes for participating in family history are meaningful. Specifically, we find that a one semester course on family history was sufficient to increase self-esteem by 8.5% and reduce anxiety by 20%.

These results are useful in that they show that participating in family history is sufficient to produce important psychological well-being benefits. Furthermore, they highlight the importance of the family as a group in the social identity tradition. Family identification is the key mediator that drives our results. Thus, this suggests that other interventions that strengthen family identification are likely to produce psychological well-being. While prior scholars advocate using family knowledge as a way for diagnosing psychological well-being, this paper takes a step further to suggest that performing family history is likely useful for more than just diagnosis, but also bolstering psychological well-being in individuals.⁵¹

There are three main limitations to our research. First, we did not randomly assign participants to take or not take a family history course. Thus, our results could be caused by other factors. We minimized the likelihood of other factors causing our results in several ways. First, we analyzed whether there were any differences in the pre-scores for the two groups. Since we have 18 comparisons across the measures in the study and demographic variables, we use a Bonferroni-adjusted p-value to guard against type I errors (p-value of statistical significance is thus $0.05/18 = 0.0028$). We find four statistically significant differences based on this analysis. The family history group has fewer undergrads, older participants, are more likely to be married, and less resilient participants. If we control for the differences in demographic factors, all of our results are robust to these analyses. Second, our analyses are based on changes in the variables of interest (i.e., a within-subject measurement).

This helps control for pre-period treatment differences by looking at the change and not overall level of the factors analyzed. Third, we corroborate our primary analyses using cross-sectional tests that are not based on the two groups. Our results are robust to this alternative analysis. Although our results are robust to all these tests, we encourage future research to use experimental manipulations with random assignment to confirm our findings.

Second, the population studied in our analyses is limited to a particular demographic group, specifically, a relatively homogenous group of young, religious individuals at a single university. Whether our results will generalize to a larger population is an area for future research. We specifically encourage research that tests diverse populations in terms of religious experience, age, and other demographic factors. Similar to the previous concern, this concern is somewhat mitigated by analyzing changes in psychological well-being and family history and knowledge, but a fully randomized experimental study with a diverse population of participants would provide more externally valid evidence.

Third, our participants—in both conditions—were “paid” by receiving extra credit in their class for participating in the study. It is possible that external incentives could crowd out intrinsic motivations to perform family history. If this occurred, then results may be different for individuals who are performing family history without extrinsic incentives to do so. While we believe this most likely would reduce the effect sizes of family history participation on psychological well-being, since the individuals may not be creating as much family identification because they are doing this for the extrinsic reward, this should be empirically tested in future research.

Our study shows the effects of family history participation on psychological well-being. We encourage future research to build on these findings to see what other positive effects there are for participating in family history work. As family history work increases family identification, it may be that performing family history work can improve family functioning by decreasing other undesirable behaviors that cause feelings of stress, anxiety, and despair. Future research should also test whether the positive or negative perception of ancestors influences results (e.g., someone is related to a “good” person like a humanitarian or a “bad” person like a criminal).

We also provide some evidence about what types of family history work are associated with positive outcomes. We believe this represents preliminary data that should be further investigated to understand how different family history activities are most effective in promoting psychological well-being. Family history research is a very broad topic, and more research is needed to understand how this tool could be effectively employed to promote psychological well-being. We encourage future research on this topic to see if participating in family history research is an effective way to inoculate individuals before they experience negative events and if it is an effective way to help in the recovery from traumatic events.

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