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ORIGINAL ARTICLE

Correlates of Help-Seeking Intentions among Airmen in the Context of Family Maltreatment Perpetration: Practical Barriers as a Moderating Influence

Todd M. Jensen[1] · Gary L. Bowen[1]

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Abstract

Efforts are warranted to understand correlates of formal help-seeking among active-duty military members self-reporting family maltreatment perpetration. Drawing from the Integrated Model of Determinants of Behavioral Intentions, we evaluate a hypothesized model in which the intention to seek formal services is associated with a set of plausible social-psychological variables. Practical barriers to help-seeking is assessed as a moderating influence. A representative sample of 5326 Airmen (88% male) from the 2011 Air Force Community Assessment Survey who self-reported recent family maltreatment perpetration is used for structural equation modeling to estimate direct associations between social support and intention to seek services, and indirect associations via career stigma, unit-based stigma, and sense of community. Social support is negatively associated with career stigma and unit-based stigma, and positively associated with sense of community. Career stigma and sense of community are negatively associated with intention to seek services. Significant indirect effects include a positive effect between social support and intention to seek services via a reduction in career stigma, and a negative effect via increases in sense of community. Higher levels of practical barriers magnify most associations. Especially when facing practical barriers, social support can both increase help-seeking intentions by reducing career stigma, and reduce intentions, either directly or indirectly by strengthening a sense of community. Military leaders should address career stigma perceptually and systematically, and engage in public awareness efforts and trainings to position members of informal networks to guide individuals with problematic behavior toward relevant formal services.

Keywords Family maltreatment · Family violence · Help-seeking · Military · Social support · Stigma

Understanding the processes and conditions associated with an individual's intention to seek help in times of need remains a critical task among those seeking to promote the well-being of individuals and families. Indeed, no amount of efficacious programs or services will achieve impact if their intended recipients opt out of participation. Consequently, researchers continue to explore the nuances of help-seeking among those who stand to benefit from mental, behavioral, or physical health services (Ali et al. 2017; Clement et al. 2015; Galdas et al. 2005; Gulliver et al. 2010).

Help-seeking among military-connected individuals has received significant attention. This attention is due, at least in part, to the unique demands of military work and life (MacDermid Wadsworth 2010), as well as the distinct military cultural milieu (Meyer et al. 2016). Moreover, military-connected individuals represent a sizable proportion of the United States (U.S.) population. In 2016, there were over 1.3 million Department of Defense active-duty military personnel and Department of Homeland Security active-duty Coast Guard Members (not to mention the additional 2.2 million reserve members and civilian personnel; Department of Defense 2016).

Extant research focused on this context largely has focused on help-seeking barriers and facilitators experienced by current and past military members with mental health concerns (Zinzow et al. 2015, 2013). Similar to their civilian

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✉ Todd M. Jensen
toddm.jensen@gmail.com

[1] School of Social Work, University of North Carolina, Chapel Hill, NC, USA

counterparts, military-connected individuals can face other significant challenges, including substance abuse, risk-taking behaviors, and, central to the focus of the current study, family maltreatment (Holland et al. 2014; Institute of Medicine 2013; Martin and Sherman 2009; Smith Slep et al. 2010). For the purposes of the current study, family maltreatment is defined as the perpetration of any non-accidental physical, sexual, or emotional trauma, abuse or neglect on a partner or child.

Despite the significant level of resources and services committed to the prevention and treatment of family maltreatment in the U.S. military (Milner 2015), help-seeking specifically among active-duty military members who self-report the perpetration of family maltreatment remains understudied. This is likely due to challenges related to acquiring sensitive data, such as self-reported behaviors that are consistent with military definitions of family maltreatment. In addition, scholars often attend to help-seeking processes among the survivors of family maltreatment, rather than the perpetrators (Liang et al. 2005). Thus, there remain valuable opportunities to explore the conditions under which active-duty military members who self-report family maltreatment perpetration intend to seek formal help to both manage their problematic behavior and address issues that contribute to it. Given the public health costs associated with family maltreatment (Coker et al. 2002; Norman et al. 2012), in addition to the costs incurred by military institutions when members of their workforce are behaviorally compromised (Smith Slep et al. 2011), efforts are warranted to understand correlates of help-seeking among perpetrators in this population.

The purpose of the current study is to address evident gaps in the literature using a large, representative dataset of active-duty members of the United States Air Force (USAF; Airmen) who self-report family maltreatment perpetration. In alignment with USAF efforts to cultivate Comprehensive Airman Fitness (i.e., promote a fit and ready force) among their members (Bowen et al. 2016a, b, 2019), in addition to USAF Family Advocacy Program efforts to bolster the prevention of family maltreatment (Bowen et al. 2017; Jensen and Bowen 2018), we evaluate a hypothesized model (see Fig. 1) in which the intention to seek formal services among Airmen who self-report family maltreatment perpetration is associated with a set of plausible social-psychological variables. We also assess practical barriers to help-seeking as a moderating influence in the model. We now turn to theory and extant research that substantiate our hypothesized model.

Correlates of Help-Seeking Intentions among Military Personnel

The Integrated Model of Determinants of Behavioral Intentions The integrated model of determinants of behavioral intentions (hereafter referred to as "the integrated model") guided our investigation of key correlates of help-seeking intentions among Airmen who self-report family maltreatment perpetration. The integrated model draws from the Reasoned Action Model, the Health Belief Model, social learning theory, theories of subjective culture, and emotion regulation theories to highlight five classes of variables that shape one's behavioral intentions (Jaccard and Levitz 2016). The five classes of variables are (a) behavioral beliefs, or the advantages and disadvantages one associates with a particular behavior; (b) social norms, or the pressure one experiences to conform to a standard of behavior; (c) self-concept and social image, or the concern one experiences with respect to what image they will convey to others if they perform a particular behavior; (d) affect and emotions, or emotional reactions one has when considering a particular behavior; and (e) self-efficacy, or the extent to which one feels they can be successful at performing a particular behavior (Jaccard and Levitz 2016). At this point it is instructive to distinguish between behavioral intentions and actual behavior. Behavioral intentions generally precede (although do not guarantee) an eventual behavior (Jaccard and Levitz 2016). Thus, when measures of actual behavior are not available, measures of behavioral intentions can be informative.

Career Stigma Research focused on help-seeking intentions among military-connected individuals generally aligns with the variable classes just summarized. Turning to behavioral beliefs, studies have identified career stigma as a common barrier to help-seeking among military personnel (Hamilton et al. 2017; O'Donnell et al. 2018; Zinzow et al. 2015). Career stigma can be conceptualized as a belief that seeking help, particularly from formal sources, will obstruct one's ability to advance in their career. This marks a clear perceived disadvantage associated with help-seeking behavior. It is worth noting that such perceptions might be reasonable; that is, help-seeking might actually yield adverse impacts on one's career advancement in some situations. Thus, any efforts to diminish career stigma (to promote help-seeking) within this population should be coupled with efforts to reduce negative consequences associated with seeking formal services (O'Donnell et al. 2018). We hypothesized that career stigma would be negatively associated with help-seeking intentions among Airmen who self-report family maltreatment perpetration.

Unit-Based Stigma Other barriers to help-seeking among military personnel have been identified in the literature that cohere with the *self-concept and social image* class of determinants of behavioral intentions. For instance, studies have investigated how anticipated negative reactions from unit leaders and peers—often labeled unit-based stigma, anticipated stigma, or anticipated enacted stigma—influence individuals' decision to seek help (Blais and Renshaw 2013; Sharp

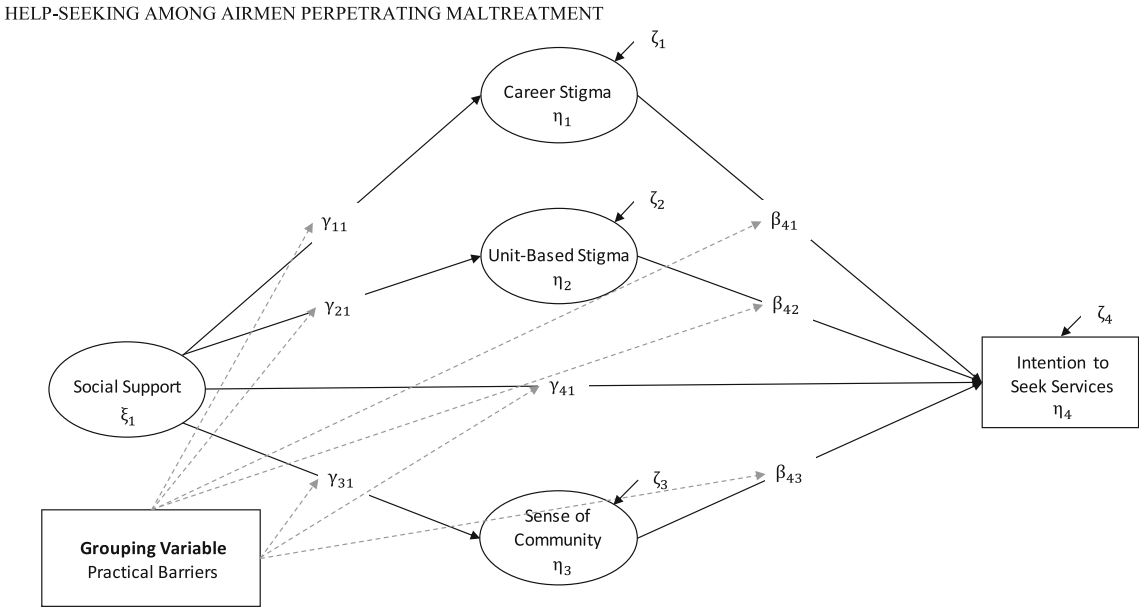

Fig. 1 Hypothesized model

et al. 2015). Notably, study findings on this topic are mixed. Sharp et al. (2015) found that most available studies assessing the influence of anticipated stigma on help-seeking intentions among military personnel found no significant association. On the other hand, studies using qualitative methodology found that active-duty military personnel and veterans experienced anticipated stigma as a significant barrier to seeking formal mental health services (Cornish et al. 2014; Pury et al. 2014). Mixed findings on this topic have been attributed to methodological issues, including heterogenous conceptualizations and measures of stigma across studies (Michalopoulou et al. 2017; Sharp et al. 2015). Thus, rather than present a firm hypothesis related to the direction and magnitude of an association between unit-based stigma and help-seeking intentions, we assess the potential influence of unit-based stigma on help-seeking intentions in the understudied population of Airmen who self-report family maltreatment perpetration.

Sense of Community Another plausible, yet less studied, correlate of help-seeking intentions is the extent to which military personnel experience a sense of community, or "the psychological sense of feeling connected to others and of belonging" (Mancini et al. 2018, p.555). The social organization theory of action and change posits that a sense of community has the capacity to exert positive influence on communities and individuals (Mancini and Bowen 2013). Consistent with the *self-concept and social image* class of determinants of behavioral intentions, a sense of community could influence help-seeking intentions by shaping how military personnel calculate the social repercussions of seeking formal support services.

In some cases, individuals who experience a strong sense of community might receive encouragement from community members to seek formal services to address problematic behavior (Pury et al. 2014). Moreover, if community norms include help-seeking in times of need, individuals with a strong sense of community might feel inclined to seek formal services when exhibiting problematic behavior. In other cases, individuals with a strong sense of community might avoid seeking out formal services if they believe doing so would demonstrably betray their community's standard of behavior or diminish community unity and cohesion (Addis and Mahalik 2003). In addition, individuals who experience a strong sense of community might be more inclined to seek support from members of that informal community, rather than from formal services. This phenomenon has been observed in the broader literature on help-seeking (Rickwood et al. 2005). Taken together, we hypothesized that a sense of community would be significantly associated with help-seeking intentions among Airmen who self-report family maltreatment perpetration; however, given that the association plausibly could be negative or positive, we do not firmly hypothesize the direction of the association.

The Role of Social Support

One important question remains: what factors effectively shape the three psychological correlates of help-seeking just reviewed among military personnel who self-report family maltreatment? Research suggests that dimensions of one's engagement with the social environment serve as likely correlates. Beyond promoting adjustment and well-being (Welsh et al. 2015), positive connections to and support from peers, friends, and leaders can increase one's sense of community.

These social connections can also decrease perceptions of help-seeking stigma, and foster trust in formal systems (Bowen et al. 2016; Pury et al. 2014).

In addition to social support having plausible indirect links with help-seeking intentions via psychological correlates of help-seeking, social support might have direct links with help-seeking intentions. Indeed, high levels of social support might yield direct encouragement from others to seek help in times of need (Gulliver et al. 2010; Pury et al. 2014). Consequently, we assess both direct and indirect associations between social support and help-seeking intentions among active-duty Airmen who self-report family maltreatment.

Practical Barriers as a Moderating Influence

Turning back to the integrated model, research has focused on various practical barriers to formal help-seeking, consistent with the *self-efficacy* class of behavioral-intention determinants. Common practical barriers include limited knowledge of resources, limited childcare or transportation options, and time constraints. We hypothesized that levels of practical barriers would moderate variable associations, such that individuals experiencing high levels of practical barriers would exhibit greater reactivity to social-psychological correlates of help-seeking intentions (Andersson et al. 2013). That is, when individuals believe they cannot be successful in seeking formal services to address maltreatment behavior for relatively concrete reasons—in this case, practical barriers—they might rely more on informal support and experience greater influence from social-psychological correlates of help-seeking that emerge in those contexts. Conversely, when individuals are not burdened by practical barriers to help-seeking, they might be less influenced by social-psychological correlates of help-seeking given the relative ease of access to formal services.

Methods

Data and Sample

Data for the current study came from the 2011 Air Force Community Assessment Survey (CAS). Between January and April 2011, the CAS was administered to active-duty members, reservists, Department of Defense civilians, and their partners (if applicable). The 2011 CAS represents the 10th iteration of a sequence of survey efforts intended to yield community-needs information to inform decision-making among Air Force stakeholders. The survey included more than 300 items pertaining to sociodemographic characteristics, deployments, mental health, secretive behaviors, resilience, help-seeking attitudes, family and couple relationships, informal networks, and other features of military life (see the Martin and Bowen 2003 reference manual for sources related to many of the survey items and scales used in the current study).

Because the focus of our study was on the help-seeking intentions of active-duty members who self-reported behavior consistent with definitions of family maltreatment, the analytic sample was reduced to focus on this specific group. Given the relatively inclusive definition of family maltreatment used to inform the current study, we chose to focus on those active-duty members who were embedded within family structures where various types of family maltreatment could possibly occur (i.e., members in committed couple relationships with at least one child). The 2011 CAS contained a battery of self-report questions about behaviors indicative of partner physical abuse, partner emotional abuse, child physical abuse, and child emotional abuse during the past year. Consistent with USAF definitions of family maltreatment, global indicators of each type of maltreatment were created by the survey administrators using the battery of items. We constructed one binary indicator, using this set of pre-existing global indicators, to flag respondents who self-reported any type of maltreatment perpetration (i.e., a value of 1 indicated that any type of family maltreatment took place during the past year, whereas a value of 0 indicated that no family maltreatment too place during the past year). Starting with the full sample of 63,290 active-duty respondents, retaining only those flagged as having perpetrated any type of family maltreatment reduced the sample to 5326 relevant cases, each of which were in a committed couple relationship and had at least one child.

Approximately 88% of the analytic sample identified as male, 7% reported being currently deployed, and 29% reported residing in on-base government housing or dorms (as opposed to off-base housing). The modal age category (44%) among respondents was 26-to-35 years, and the modal pay grade category (43%) was E5-E6 (i.e., mid-enlisted paygrade). In terms of relationship status and family structure, 2% ($n = 86$) of participants were cohabiting with an unmarried partner, 2% ($n = 112$) had an unmarried partner not residing in the home, and 96% ($n = 5128$) were married and residing with their partner. No information about racial/ethnic identity was collected in the 2011 CAS.

Measures

Social Support Consistent with the multidimensional construct of social fitness previously measured among Airmen (Bowen et al. 2016a, b) and efforts to optimize model fit and parsimony, the broader construct of social support was conceptualized as a second-order latent construct, onto which three first-order latent constructs loaded. The first-order latent constructs represented (a) unit leader support, (b) neighbor support, and (c) unit peer support. Although support from a partner marks another important social context, its inclusion was beyond

the aims and focus of this study. *Unit leader support* (α = .94) was measured with four items that asked respondents to indicate the extent to which unit leaders sponsored events and informal activities for members and their families, helped new members and families get settled in the community and connected with other members and families, worked together as a team to support members and their families, and worked with AF support agencies to address the needs of members and families. *Neighbor support* (α = .95) was measured with four items that asked respondents to indicate the extent to which people in the neighborhood knew the names of their neighbors, looked out for one another, offered help in times of need, and talked to or visited with neighbors. *Unit peer support* (α = .91) was measured with three items that asked respondents to indicate the extent to which members of their squadron/unit really stick together, work together as a team, and perform well in a deployment or crisis situation. Response options for all social support items ranged from "strongly disagree" (1) to "strongly agree" (6), with higher values being indicative of higher levels of perceived social support.

Psychological Correlates of Help-Seeking Intentions Three latent constructs were specified to reflect career stigma, unit-based stigma, and sense of community. *Career stigma* (α = .92) was measured as a latent construct with a set of seven observed items that asked respondents to indicate whether they believed active-duty USAF members' careers would be helped or hurt if they visited various helping professionals (i.e., military chaplains, military mental health professionals, civilian mental health professionals, military medical doctors, civilian medical doctors, Airman and Family Readiness Center staff, and military family life consultants) to discuss personal problems or serious troubles. Response options ranged from "careers would be helped a lot" (1) to "careers would be hurt a lot" (5), with higher values being indicative of higher levels of career stigma.

Unit-based stigma (α = .81) was measured as a latent construct with four observed items, which asked respondents to reflect on how others might react to an active-duty USAF member seeking professional counseling or care for an emotional or personal problem. The listed items were "co-workers would criticize or make fun of them," "co-workers would have less confidence in them," "supervisors would have less confidence in them," and "Chain of Command would be supportive." Response options ranged from "not at all likely" (1) to "absolutely certain" (4), and all items were coded such that higher values were indicative of higher levels of unit-based stigma.

Sense of community (α = .93) was measured as a latent construct, with four observed items asking respondents to indicate whether members and families assigned to their base feel a sense of common mission and purpose, show teamwork and cooperation, feel a collective sense of community, and feel connected to other members and families. Response options ranged from "strongly disagree" (1) to "strongly agree" (6), and higher values were indicative of higher levels of perceived sense of community.

Intention to Seek Services The intention to seek services among sample respondents was measured with the following observed item: "How likely will you be to seek counseling or mental health care services in the next three months?" Response options ranged from "not at all likely" (1) to "absolutely certain" (4). Thus, higher values were indicative of greater intentions to seek services in the near future.

Practical Barriers Practical barriers (α = .77) was measured as a latent construct, with six observed items asking respondents to reflect on statements about seeking counseling or mental health care services. Statements included "I would not know where to get help," "I would not know how to select an appropriate mental health care provider," "It would be difficult for me to arrange transportation for services," "It would be difficult for me to get child care," "It would be difficult for me to get time off of work," and "it would be difficult to schedule an appointment." Response options ranged from "does not describe me at all" (1) to "describes me very well" (4), with higher values indicating higher levels of practical barriers. Latent factor scores were then estimated, standardized, and partitioned into three categories representing low (i.e., one *SD* or more below the sample mean), average (i.e., between one *SD* below and one *SD* above the sample mean), and high (i.e., one *SD* or more above the sample mean) levels of practical barriers. This three-category variable was specified as a grouping, or moderating, variable in subsequent analyses (more details are provided in the Data Analysis subsection).

Covariates Our analysis accounted for several covariates that could influence one's intention to seek services (Andersson et al. 2013; Blais and Renshaw 2013; Bowen et al. 2016; Flittner O'Grady et al. 2015; Rickwood et al. 2005), including past use of counseling, mental health care services, or life skills assistance from one of several sources (e.g., military OneSource, military family life consultants, military chaplain, primary care physician) during the past two years (1 = yes, 0 = no, or not within the past two years); paygrade (dummy coded as either *E1–E4: Airman Basic to Senior Airman*, *E5-E6: Staff Sergeant to Technical Sergeant* [reference group], *E7-E9: Master Sergeant to Chief Master Sergeant*, *O1-O3: Second Lieutenant to Captain*, and *O4: Major* or higher); family structure (dummy coded as either unmarried partner in residence, unmarried partner not in residence, or married partner in residence [reference group]); deployment status (*currently deployed* [1], *not currently deployed* [0]); presence of young children in the home (youngest child is 5 years or younger [1], youngest child is older than 5 years [0]); age

(dummy coded as 18–25, 26–35 [reference group], 36–45, or 46 or older); biological sex (*female* [1], *male* [0]); and housing location (on-base [0], off-base [1]).

We also controlled for perceived effectiveness of various service providers (i.e., military chaplains, military and civilian mental health professionals and medical doctors, military family life consultants, Airman and Family Readiness Center staff) in helping people with personal problems or serious troubles. Perceived effectiveness was measured as a latent construct with seven observed items reflecting each of the listed service providers. Response options ranged from "not at all effective/not aware of service" (1) to "very effective" (3). Thus, higher values were indicative of higher levels of perceived effectiveness. We also controlled for positive attitudes toward counseling or mental health care services. Positive attitudes was measured as a latent construct, with two observed items that asked respondents to indicate how well the following statements described their thoughts: "mental health care professional are not useful as a way to deal with life's problems," and "mental health treatment takes a long time to be effective." Response options ranged from "does not describe me at all" (1) to "describes me very well" (4). Items were reverse coded, such that higher values were indicative of more positive attitudes toward services. Perceived effectiveness of and positive attitudes toward formal services were treated as covariates to further isolate the focal variable associations hypothesized in our model. Moreover, perceived effectiveness and positive attitudes were not hypothesized to significantly mediate an association between social support and intention to seek services.

Data Analysis

We used structural equation modeling (SEM) in Mplus 8.3 (Muthén and Muthén 2019) to test our study hypotheses. SEM was an optimal analytic approach on several fronts. For one, SEM allows for the estimation of latent constructs, which effectively handles measurement error and can accommodate ordered categorical observed variables. SEM also allows for the simultaneous estimation of regression equations, which can include the estimation of both direct and indirect effects. SEM also allows for multiple-group comparison analyses, which enables the specification of a grouping variable, or moderator, by which an analytic model can be partitioned across groups to assess measurement and structural invariance. In our case, levels of practical barriers (i.e., low, average, and high) was specified as a grouping variable.

We began by specifying a measurement model in which all first-order latent constructs were modeled. Because observed indicators represented ordinal, or ordered categorical, measures, we used a means- and variance-adjusted weighted least squares (WLSMV) estimator and polychoric correlation input matrix (Flora and Curran 2004). Acceptable fit was assessed using the following model fit indices: Comparative Fit Index (CFI; Bentler 1990) values > .95; Tucker-Lewis Index (TLI) values > .95 (Hu and Bentler 1999); and a root mean square error of approximation (RMSEA) value (and upper 90% confidence level [CI]) < .06 (Browne and Cudeck 1993). We then assessed measurement invariance across the three levels of practical barriers, with a step-wise assessment of configural (i.e., structural), metric (i.e., factor loadings), and scalar invariance (i.e., item thresholds [analogous to item intercepts for ordered categorical items]; Dimitrov 2010). We then specified the second-order latent construct (i.e., social support), and assessed second-order metric invariance across levels of practical barriers (Chen et al. 2005). Changes in CFI were observed to evaluate measurement invariance, with a change of less than .002 (ΔCFI < .002) being indicative of a negligible shift in model fit in response to parameter constraints across levels of practical barriers (Cheung and Rensvold 2002; Meade et al. 2008).

Following an assessment of measurement invariance, structural parameters were specified between latent constructs in a manner consistent with our hypothesized model. The percentage of missing values across variables in the analytic model was 8%. Results from Little's Missing Completely at Random (MCAR) test provided evidence that missing data were MCAR ($\chi^2[2333] = 2380$, $p = .24$), and thus suitable for corrective methods such as full information maximum likelihood (FIML; Enders 2010; Li 2013). Wald tests were then used to assess structural invariance across levels of practical barriers (Chou and Huh 2012). Parameters for which Wald tests were non-significant were constrained to equality across levels of practical barriers, whereas parameters for which Wald tests were significant were allowed to vary across levels of practical barriers. For indirect effects, we used the RMediation package, which employs the distribution-of-the-product method to estimate confidence intervals for indirect effects (Tofighi and MacKinnon 2011). Preliminary calculations indicated that the estimated model was over-identified and sufficiently powered to assess model fit (Lee et al. 2012). Standard errors were corrected for within-base clustering and an available sampling weight was applied to generate model parameters representative of the active-duty USAF population.

Results

Results from measurement invariance tests provided evidence for configural, metric, and scalar invariance across levels of practical barriers. Results also indicated second-order metric invariance (i.e., factor loadings associated with social support) across levels of practical barriers. Consequently, all measurement parameters were constrained to equality across groups. Table 1 displays the measurement parameters in more detail.

Table 1 Measurement parameters

	Standardized factor loading
First-order latent constructs	
Unit leader support	
Item 1	0.86
Item 2	0.94
Item 3	0.96
Item 4	0.91
Neighbor support	
Item 1	0.88
Item 2	0.96
Item 3	0.95
Item 4	0.93
Unit peer support	
Item 1	0.93
Item 2	0.94
Item 3	0.80
Career stigma	
Item 1	0.70
Item 2	0.95
Item 3	0.86
Item 4	0.85
Item 5	0.83
Item 6	0.89
Item 7	0.91
Unit-based stigma	
Item 1	0.77
Item 2	0.82
Item 3	0.84
Item 4	0.83
Sense of community	
Item 1	0.89
Item 2	0.93
Item 3	0.93
Item 4	0.88
Second-order latent construct	
Social support	
Unit leader support	0.71
Neighbor support	0.37
Unit Peer support	0.80

Construct items are numbered in the order they are described in the Measures subsection

Results from structural invariance tests indicated that all but two structural parameters should be freely estimated across levels of practical barriers. Specifically, the path between unit-based stigma and intention to seek services ($\chi^2[1] = 2.49$, $p = .11$) and the path between sense of community and intention to seek services ($\chi^2[1] = 0.13$, $p = .72$) did not differ significantly across levels of practical barriers, and were thus constrained to equality. Taken together, these results indicated that practical barriers functioned as a significant moderator across five of the seven estimated structural parameters. In general, higher levels of practical barriers increased the magnitude of structural parameters and the explained variance (i.e., R^2) of endogenous variables. The final model (see Fig. 2) yielded good fit, as indicated by the following model fit indices: CFI = .98, TLI = .98, and RMSEA = .02 (upper 90% CI = .02). Supplemental analyses indicated measurement and structural invariance in the final model with respect to respondent sex and housing location (specific results not reported).

Fig. 2 displays results from the final model, including unstandardized coefficients and R^2 values for each endogenous variable. Only one coefficient is displayed for paths that could be constrained to equality across levels of practical barriers, whereas distinct coefficients are displayed for each level of practical barriers when coefficients differed significantly across groups.

Turning to those with *low practical barriers*, higher levels of social support were significantly associated with lower levels of career stigma (b = −.15) and higher levels of sense of community (b = .56). Social support was not significantly associated with unit-based stigma, nor was it directly associated with intention to seek services. Although career stigma and unit-based stigma were not significantly associated with intention to seek services in this group, higher levels of sense of community were significantly associated with lower levels of intention to seek services (b = −.12). As shown in Table 2, the indirect path from social support to intention to seek services via sense of community was significant and negative (b = −.07, $p < .05$).

In terms of those with *average practical barriers*, higher levels of social support were significantly associated with lower levels of career stigma (b = −.22), lower levels of unit-based stigma (b = −.23), and higher levels of sense of community (b = .67). Social support was not directly associated with intention to seek services. Both higher levels of career stigma and higher levels of sense of community were associated with lower levels of intention to seek services (b = −.22 and − .12, respectively). Unit-based stigma was not significantly associated with intention to seek services. As shown in Table 2, the indirect path from social support to intention to seek services via career stigma was significant and positive (b = .05, $p < .001$), whereas the indirect path from social support to intention to seek services via sense of community was significant and negative (b = −.08, $p < .05$).

Those with *high practical barriers* generally resembled those with average practical barriers, although structural parameters were relatively larger. Specifically, the negative associations of social support with career stigma and unit-based stigma were larger (b = −.25 and − .36, respectively) than the other groups. The positive association between social support

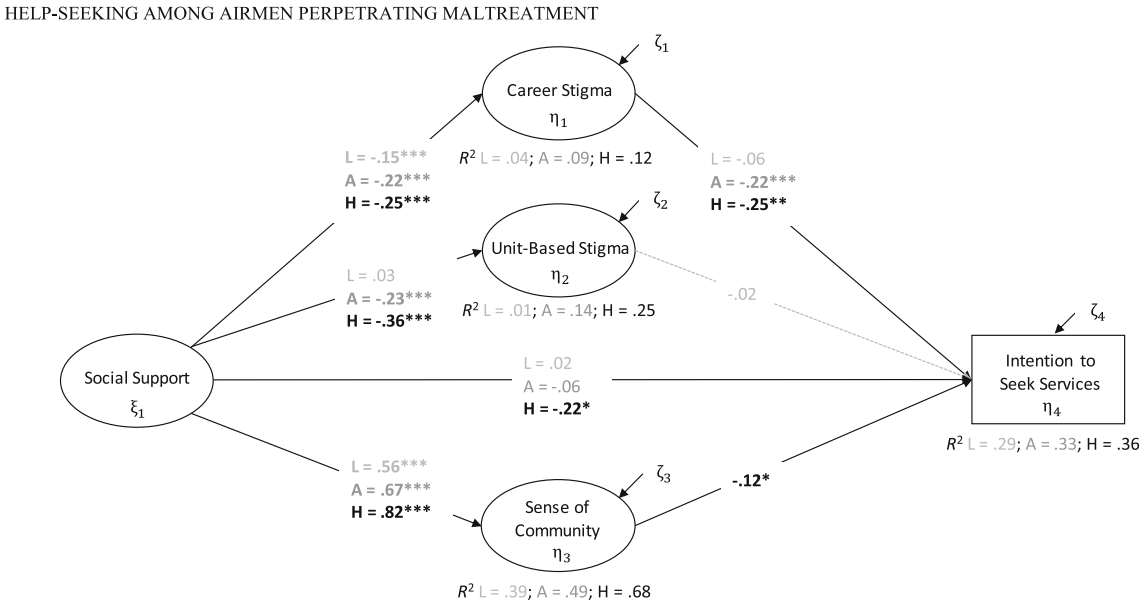

Fig. 2 Final model with unstandardized structural parameters across low ($n = 815$), average ($n = 3524$), and high ($n = 987$) levels of practical barriers. *Note:* ***$p < .001$; **$p < .01$; *$p < .05$; Bold font used to highlight parameters significant at $p < .05$ level. L = Low levels of practical barriers (i.e., 1 *SD* or more below the sample mean); A = Average levels of practical barriers (i.e., between 1 *SD* above and 1 *SD* below the sample mean); H = High levels of practical barriers (i.e., 1 *SD* or more above the sample mean). Structural paths with one estimated parameter indicates invariance or statistical equality across levels of practical barriers. Model fit indices were as follows: $\chi^2(3588) = 5791.27$, $p < .001$; CFI = .98; TLI = .98; RMSEA = .02 (upper 90% CI = .02). Means- and variance-adjusted weighted least squares (WLSMV) estimator was used. Standard errors were corrected for within-base clustering, and sampling weights were used to generate representative model parameters

and sense of community was also larger (b = .82) than the other groups. The negative association between career stigma and intention to seek services was also relatively larger (b = −.25). Similar to the other groups, higher levels of sense of community were associated with lower levels of intention to seek services (b = −.12) and unit-based stigma was not significantly associated with intention to seek services. As shown in Table 2, the indirect path from social support to intention to seek services via career stigma was significant and positive (b = .06, $p < .01$), whereas the indirect path from social support to intention to seek services via sense of community was significant and negative (b = −.10, $p < .05$). Perhaps the most notable distinction between those with high practical barriers and the other groups was the significant and negative direct

Table 2 Decomposition of unstandardized effects by levels of practical barriers

	Practical Barriers											
	Low				Average				High			
	b	*SE*	95% CI[a]	*p* value	b	*SE*	95% CI[a]	*p* value	b	*SE*	95% CI[a]	*p* value
Direct effects												
Social support > intention to seek services	0.02	0.10		0.98	−0.06	0.07		0.35	**−0.22**	**0.09**		**0.02**
Specific indirect effects												
Social support > career stigma > intention to seek services	0.01	0.01	[−0.01, 0.03]	0.43	**0.05**	**0.01**	**[0.02, 0.08]**	**0.00**	**0.06**	**0.02**	**[0.02, 0.11]**	**0.01**
Social support > unit-based stigma > intention to seek services	0.00	0.00	[−0.01, 0.01]	0.79	0.00	0.01	[−0.02, 0.03]	0.79	0.01	0.02	[−0.04, 0.05]	0.79
Social support > sense of community > intention to seek services	**−0.07**	**0.03**	**[−0.12, −0.01]**	**0.02**	**−0.08**	**0.03**	**[−0.15, −0.02]**	**0.02**	**−0.10**	**0.04**	**[−0.18, −0.02]**	**0.02**
Total indirect effects	−0.06	0.03		0.05	−0.03	0.04		0.50	−0.03	0.06		0.58

[a] 95% confidence intervals were estimated for specific indirect effects using the RMediation package, which employs the distribution-of-the-product method (Tofighi and MacKinnon 2011). Bold font used to highlight parameters significant at $p < .05$

association between social support and intention to seek services (b = −.22).

The final model also yielded several significant associations between covariates and intention to seek services. Airmen who reported prior use of formal services within the past 2 years reported higher levels of intention to seek services than Airmen who reported no prior use of formal services within the past two years (b = 1.13); Airmen with an O1 or higher paygrade reported lower levels of intention to seek services than Airmen with E5-E6 paygrades; Airmen who were deployed at the time of data collection reported lower levels of intention to seek services than Airmen not currently deployed (b = −.62); and Airmen identifying as female reported higher levels of intention to seek services than Airmen identifying as male (b = .18). Perceived effectiveness of (b = .22) and positive atitudes toward (b = .20) formal services were both positively associated with intention to seek services.

Discussion

Informed by the integrated model and past research, we analyzed a statistical model in which intentions to seek formal services among Airmen who self-reported family maltreatment perpetration was associated with a set of plausible social-psychological correlates. Turning to specific hypotheses, our results supported the hypothesis that career stigma is negatively associated with intentions to seek services. The association, however, did not hold for those reporting low levels of practical barriers. That is, career stigma might be relatively less impactful on one's intentions to seek services when they have the time, resources, and knowledge needed to pursue those services successfully.

As noted earlier, we did not feel justified in hypothesizing the direction and magnitude of an association between unit-based stigma and help-seeking intentions given the notable variation of findings in the literature. Our model found the association to be non-significant across all levels of practical barriers. Thus, relative to other factors like career stigma and sense of community, concern surrounding how peers and co-workers might react to formal help-seeking efforts might be less influential among Airmen who self-report family maltreatment perpetration.

Our hypothesis that sense of community is associated with intentions to seek services was supported. More specifically, our findings suggest that higher levels of sense of community are negatively associated with the intention to seek formal services among Airmen who self-report the perpetration of family maltreatment. Consistent with some prior research (Addis and Mahalik 2003), Airmen with a strong sense of community might avoid seeking services for problematic behavior to avoid betraying their community's standards of behavior.

As expected, social support was significantly associated with all three psychological correlates of help-seeking intentions, but yielded significantly indirect associations with intentions to seek services only via career stigma and sense of community. The indirect association via career stigma was positive, such that higher levels of social support were associated with higher levels of help-seeking intentions via a reduction in career stigma. Interestingly, the indirect association via sense of community was negative, such that higher levels of social support were associated with lower levels of help-seeking intentions via an increase in sense of community. Consistent with our hypotheses, both indirect associations were most pronounced among those who perceived high levels of practical barriers. Taken together, these findings suggest that social support can influence help-seeking intentions among this population in divergent ways, especially among those who perceive high levels of practical barriers to accessing formal services. On one hand, social support might lead individuals to believe help-seeking will not adversely impact their career, resulting in an increased willingness to seek formal services to address problematic behavior. On the other hand, social support can foster a sense of community that could either lead individuals to avoid calling attention to their problematic behavior when seeking formal services or opt to rely on informal sources of support in times of need.

Limitations and Future Research

Findings from this study should be interpreted in the context of some study limitations. For one, the data used for the current study are cross-sectional. Thus, variable associations should be viewed as associational, not causal. Future research should explore longitudinal associations between social-psychological correlates of help-seeking intentions to verify the temporal ordering of variables. Although the cross-sectional data necessarily limit the internal validity of our findings, the representative sample of Airmen in couples with at least one child bolster the external validity of our findings. Consistent with the concept of military cultural competence (Meyer et al. 2016), along with the acknowledgement that substantial heterogeneity exists within the military population, efforts to explore these variable associations in other military branches and among other types of military personnel are warranted in future research. In addition, future research should explore whether the type of maltreatment being perpetrated (e.g., physical versus emotional, and partner versus child) moderates variable associations.

Another important study limitation is that our outcome variable measured behavioral intentions, not actual behavior. Future research should aim to capture information about not only behavioral intentions but also actual behavior, to determine whether key social-psychological correlates of help-seeking intentions translate to actual behavior among

Airmen who self-report family maltreatment perpetration. It will also be critical for future research to examine processes of help-seeking with respect to both formal and informal sources of support (Bowen et al. 2016). It is clear that help-seeking processes might differ depending on where and with whom Airmen seek help in addressing problematic behavior. More research is needed to map our understanding of how to promote and synergize both formal and informal help-seeking, particularly among those perpetrating various forms of family maltreatment or other problematic behavior.

We should also note that methodologists have encouraged caution when using goodness-of-fit indexes, such as CFI, to assess measurement invariance in models using robust estimators (e.g., WLSMV; Sass et al. 2014). This prompted our decision to use a relatively stringent criterion with respect to change in CFI to assess measurement invariance (i.e., decrease in CFI of .002 or more being indicative of non-invariance; Meade et al. 2008). We are also reassured by, in addition to the undiscernible change in CFI, the non-significant chi-square test that assessed metric invariance—a sufficient level of invariance to proceed with tests of structural invariance (Dimitrov 2010). Another potential limitation stems from our necessary reliance on self-reports of family maltreatment perpetration to select our analytic sample, which can underestimate actual rates of perpetration. In addition, survey items related to formal services were relatively general in focus (i.e., counseling or mental health care services), rather than framing help-seeking specifically with respect to family maltreatment perpetration. Despite these item features, we believe a general view of formal help-seeking is informative in this subpopulation (i.e., Airmen who self-reported family maltreatment perpetration), because past research highlights associations between a number of issues for which Airmen might seek formal support (e.g., compromised mental fitness, suboptimal family dynamics, financial strain) and their level of personal resilience and risk for maltreatment perpetration (Bowen et al. 2017).

Practical Implications

Study limitations notwithstanding, our findings highlight meaningful practical implications in terms of help-seeking among Airmen who self-report family maltreatment perpetration. Foremost, military leaders and decision-makers should think critically about strategies to foster help-seeking among members engaging in problematic behavior. Our findings point to the nuanced role that social support can play, particularly in the form of unit leader support, neighbor support, and unit peer support. Unit-related relationships appear especially impactful given the magnitude of the second-order factor loadings in our statistical model.

In general, these findings align with efforts by the USAF Family Advocacy Program to incorporate a community capacity building perspective in the design of prevention activities to reduce family maltreatment (Bowen et al. 2017; Mancini et al. 2006). This perspective embraces the importance of formal and informal social support mechanisms in strengthening families and increasing their resiliency in the face of adversity and challenges. In particular, attention is directed to consulting and working in full partnership with unit leadership (commanders, first sergeants, and front-line supervisors at the squadron and flight level) in support of a unit culture that promotes member and family safety and wellness, including support for activities that reduce social isolation and increase connection among unit members and families. An important focus is helping unit leaders identify (a) early indicators of member and family difficulty that might lead to maltreatment and (b) when and how to refer unit members and families to Family Advocacy Program outreach services when needed. A focus on unit outreach and direct engagement with unit leaders could help break down service delivery barriers and promote a stronger interface between unit leadership and Family Advocacy Program outreach staff in support of members and families, both individually and collectively.

Our results suggest that efforts to bolster social support among individuals perpetrating family maltreatment might actually, in some cases, directly reduce their intentions to seek formal services. Efforts to bolster social support might also indirectly reduce individuals' intentions to seek formal services by strengthening their sense of community. This could be especially true among those who perceive high levels of practical barriers to accessing formal services. Although strong informal networks might serve individuals with problematic behavior well as a source of direct and indirect support, individuals with problematic behavior and strong informal networks might forgo formal services to prevent or assuage community concerns about their problematic behavior. This phenomenon would suggest important opportunities to engage in public awareness efforts and trainings to position well members of informal networks to guide individuals with problematic behavior toward formal services that could augment or supplement the support sought and received within their informal networks. Certainly, informal support can be valuable as it can yield a multitude of benefits for active-duty members (e.g., Welsh et al. 2015). We posit that some individuals, particularly those engaging in problematic behavior like family maltreatment perpetration, might benefit from both formal and informal sources of support.

Importantly, increases in social support within this population appear to lower career stigma, lower unit-based stigma, and heighten a sense of community—intermediate outcomes that could yield other positive long-term outcomes for Airmen. Given the robust association between career stigma and intentions to seek services; especially among those who report high, and even average, levels of practical barriers, military leaders should endeavor to address career stigma.

Efforts on this front might warrant not only attempts to shift the perceptions of active-duty members, but also attempts to confront the underlying systemic dynamics that produce career stigma in the first place (O'Donnell et al. 2018). Our results suggest that policies and practices aimed at cultivating social support among active-duty members could be beneficial on these fronts.

It will also be critical to work towards mitigating practical barriers, as some of the social-psychological correlates of help-seeking appear muted among those with easier access to formal services. Thus, addressing practical barriers could be a highly effective, albeit complex and costly, intervention strategy to facilitate the use of formal services among Airmen who self-report family maltreatment perpetration.

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