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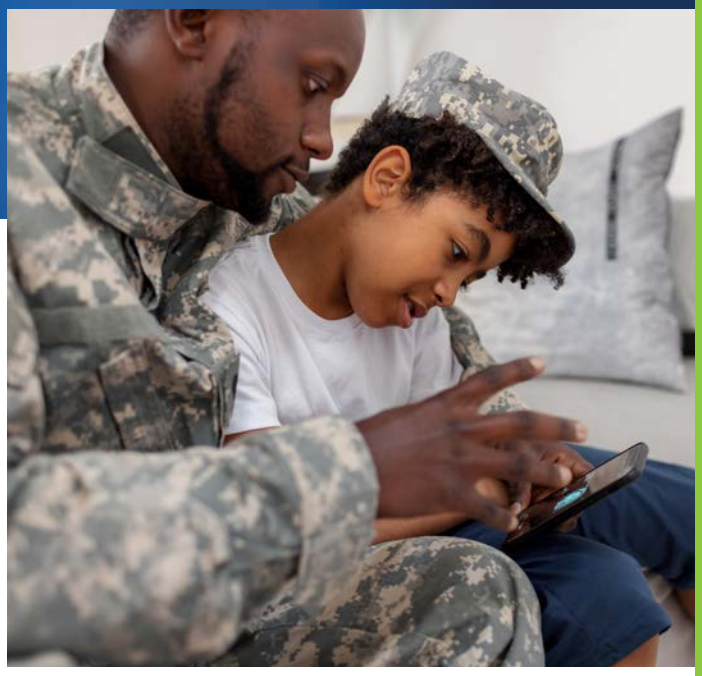

Substance Misuse Prevention Program Attendance: Predictors Among Military Families

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Abstract

Typical life circumstances for military families may impact their participation in prevention programs, yet little is known about what factors influence their participation. The current study examined predictors of attendance in the Strengthening Families Program: For Parents and Youth 10–14, for Military Families, a universal in-person program designed to improve family functioning and reduce youth substance misuse and other problem behaviors. Participants included 159 parent–child dyads randomly selected to be offered the 7-week family program. Analyses examined demographic characteristics, deployment experiences, time spent waiting for the program to begin, and psychosocial functioning as predictors of attendance in a series of regression models. Of the 39 percent of families that attended any program sessions, the majority (71 percent) attended at least four of the seven sessions. Attendance varied significantly across the geographic areas in which groups were held. Prior service utilization, youth conduct problem behavior, parental history of deployment, and family conflict were each positively associated with attendance, whereas parent tobacco use was negatively associated with attendance. These results highlight the challenges in recruiting military families into in-person prevention programs and suggest that extra efforts may be needed to engage families that do not perceive that they have a need for support.

Introduction

Several family-focused programs have demonstrated efficacy for the prevention of youth substance misuse and other problem behaviors (Van Ryzin et al., 2016). However, recruiting and retaining families in such programs, especially those requiring in-person attendance, has been a real-world implementation challenge (Spoth & Redmond, 2000; Spoth et al., 2013). Participation in family-focused prevention programs is frequently low (Mauricio et al., 2018), and military families are no exception to this (Aronson et al., 2018). The unique challenges military families face, including long-term parent–child separations, combat-related stress and mental health problems, and frequent relocations are all potential barriers to program participation.

Understanding such barriers better can help identify subpopulations of military families that are not being reached by prevention programs and can help program implementers work toward successful implementation and meaningful evaluation. With these goals in mind, the current study examined predictors of attendance at an in-person, family-focused prevention program designed to improve family functioning and reduce youth substance misuse and other problem behaviors among military families. This prevention program—the Strengthening Families Program: For Parents and Youth 10–14, for Military Families (SFP 10–14 MF)—was adapted from the Strengthening Families Program: For Parents and Youth 10–14 (SFP 10–14; Molgaard et al., 1997) to enhance its relevance for military families. The original SFP 10–14 is an evidence-based universal prevention program designed to reduce youth substance misuse and other problem behaviors by strengthening parenting skills and teaching youth peer resistance skills. It includes seven 2-hour sessions that are delivered weekly. During the first hour, parents and youth meet separately; during the second hour, parents and youth come back together to practice skills, play games, and do family projects. Results of randomized controlled studies have demonstrated long-term effects of the original program on adolescent life skills, substance misuse, and aggressive behaviors (Spoth et al., 2000a; Spoth et al., 2001; Spoth et al., 2015).

As part of the current project, we used findings from focus groups and stakeholder surveys with the target population and military-connected service providers to adapt the SFP 10–14 session objectives, content, activities, and parent–child interaction examples to address the unique challenges and stressors faced by military families. These challenges include the impacts of family disruptions on routines and plans; children's feelings of isolation, being bullied, or being asked to take on adult roles when a parent is away; and impacts of military culture on parents' communication with children.

Predictors of Attendance

Research suggests that military populations confront many barriers when it comes to engaging in mental health services (Becker et al., 2014; Vogt, 2011). These barriers also may be relevant when examining participation in family-focused prevention programs. For example, one study noted that barriers included relocation or deployment, the parents' view that they were too busy, and the perception that they no longer needed services (Lester et al., 2012; Lester et al., 2016). These are consistent with studies of civilian families that suggested the key role of practical barriers, such as scheduling, time constraints, and transportation, in limiting participation in prevention programs (Duppong-Hurley et al., 2016; Mendez et al., 2009). The ways in which family characteristics and experiences intersect with these barriers varies across studies of civilian families. Family background characteristics and well-being may influence program participation indirectly through health belief predictors, including perceived severity of and susceptibility to youth maladjustment, perceived benefits of and barriers to program participation, and inclination to enroll (Spoth & Redmond, 1995; Spoth et al., 2000b). Alternatively, family characteristics and well-being may be indicators of the health belief predictors themselves (i.e., perceived need and perceived barriers; Winslow et al., 2009), or barriers may impact attendance differently depending on levels of parent psychological well-being and involvement with children (Mendez et al., 2009). The current study extended this research to military families by examining four sets of program attendance predictors salient in the literature

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reviewed: demographic characteristics, deployment experiences, time spent waiting for the program to begin, and psychosocial functioning.

Demographic Characteristics

Demographic characteristics such as age, education, household composition, and employment may be predictors of attendance because they may be associated with practical barriers to participation (e.g., lack of schedule flexibility or more time demands) or may be associated with individual differences in perceived program benefits. Only a few studies have examined demographic predictors of program participation among military families; several of these are from an evaluation of the After Deployment Adaptive Parenting Tools (ADAPT) parent training program. One ADAPT study found that families that attended in-person sessions had fewer children in the home than families that did not attend (Gewirtz et al., 2014). A second ADAPT study found that parents with younger children attended more face-to-face sessions, parents with more education participated in more online program components, and employed parents were less likely to participate in either face-to-face or online components (Doty et al., 2016). In addition, an evaluation of Families OverComing Under Stress (FOCUS), a military family resiliency training program, found that adults in families that completed the intervention were more likely to be male, military members, and older than adults in families that did not complete it (Lester et al., 2012; Lester et al., 2016).

Given the scarcity of research with military families, it is helpful to draw on results of the larger body of recent research with civilian families to clarify the most relevant attendance predictors. Parental age and parental education have each been positively associated with attendance and retention (Corso et al., 2010; Fleming et al., 2015; Spoth & Redmond, 2000; Winslow et al., 2009); younger child age and the child being male have also predicted better attendance and retention (Fleming et al., 2015). One study found that parent minority status predicted lower attendance and that being in a two-parent household predicted better retention (Baker et al., 2011). There have been conflicting findings regarding family income; two studies found a positive association between income and attendance (Baker et al., 2011; Fleming et al., 2015), but another found a negative association (Corso et al., 2010). One study found that full-time employed mothers attended fewer sessions than part-time or unemployed mothers (Muzik et al., 2014).

Deployment Experiences

Deployments may strain military family relationships and parent and youth well-being (Lester & Flake, 2013; Lester et al., 2010), which may prompt a perceived need for support, but deployment can also create less availability for program attendance. Only the ADAPT study has examined links between deployment and program participation. It found that parents who had not been deployed participated in more online parenting program components than those who had been deployed; among deployed parents, those with longer deployments were less likely to have high participation in both face-to-face and online modes than face-to-face only (Doty et al., 2016).

Time Waiting for the Program

Although no other research has specifically looked at time spent waiting for the program to begin as a predictor of attendance, studies have found that strategic timing of recruitment predicted increased retention in a parenting program (Winslow et al., 2009) and that military families that were waitlisted for a parenting intervention were more likely to drop out of the evaluation (DeVoe et al., 2017). Time on waiting lists has also been noted as a barrier to participation in child mental health services (Gopalan et al., 2010). In the current study, participant recruitment proceeded slowly because of barriers to active recruitment of military families and because families were dispersed across seven areas strategically selected for the study. We anticipated that as more time elapsed between the baseline interviews and the start of a program group (which required a minimum number of families assigned to the intervention condition in a location), practical barriers to participation (e.g., unavailability because of deployment, relocation, or involvement in activities with scheduling conflicts) would increase.

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Psychosocial Functioning

Challenges in family relationships or parent and child mental or behavioral health problems may be associated with perceived severity of or susceptibility to poor outcomes and perceived program benefits. However, these challenges may also deter families from joining group-based programs because of stigma or confidentiality concerns. To date, mental health, behavioral health, and relationship correlates of program attendance have been examined in very few studies of military families. A qualitative study found that military fathers with greater mental health symptomatology expressed more fear about committing to a resilience-building group program for families of young children (Dodge et al., 2018). The FOCUS evaluation found that families with parents experiencing less psychological distress and that had better family functioning at baseline were more likely to complete the intervention than families with more parental distress and worse family functioning (Lester et al., 2012; Lester et al., 2016).

Recent studies of civilian families revealed several potential psychosocial correlates of attendance, but there have been conflicting findings for some domains. Our review prioritized studies of group-based programs that did not target families already experiencing problems, because these were most likely to be similar to the current study. Regarding the quality of parent–child relationships, more relational challenges have been associated with better attendance (Fleming et al., 2015; Perrino et al., 2018). In the domain of parental adjustment, family stress and parental depression have been associated with worse attendance and retention (Baker et al., 2011; Perrino et al., 2018); however, one study did not find significant linkages between maternal distress and program enrollment or retention (Winslow et al., 2009). In contrast, most studies examining child adjustment have documented that more child behavior problems or mental health symptoms predict better attendance (Baker et al., 2011; Finan et al., 2018; Winslow et al., 2009).

The Current Study

The current study extended research on predictors of family-focused prevention program attendance to a sample of military families participating in an SFP 10–14 MF trial. Given inconsistent associations in the literature and a scarcity of studies with military families, our analyses of demographic and psychosocial characteristics were largely exploratory. However, we predicted that deployment experience, parental maladjustment, and wait time for the program would be negatively associated with attendance, whereas parent–child relationship problems and youth behavior problems would be positively associated with attendance. Although not reported in recent literature, we also included indicators of parent substance use as predictors given the program's focus on preventing youth substance misuse.

Method

Participants

We recruited families in seven counties of a southeastern state for the randomized trial of SFP 10–14 MF through collaborations with military leaders, leaders of military family programs, military-related organizations, and individuals who could solicit interest from military families they serve, using electronic and in-person communication. The research team provided training and talking points to these individuals and organizations to recruit families through their existing communication channels. Families were also recruited through (1) social media posts (i.e., on the project page and partner organization pages) and local groups supporting military communities; (2) flyers advertising the project on military installations, at in-person events, and at United Service Organizations (USOs) facilities; (3) mass emails, telephone calls, and regular newsletters distributed to military families; (4) information posted to school distribution websites; (5) information posted to the project website; and (6) word of mouth from other participating families.

To be eligible for the SFP 10–14 MF trial, families were required to include at least one military-

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connected parent or legal guardian (either a service member or their spouse/partner) and a child aged 10 to 12 who lived in a target area (defined as a county or pair of adjacent counties) or within the ZIP code of a target area. Parents and children had to be able to understand and respond to questions in English to participate. If there were two eligible and interested parents in a household, we randomly selected one parent to participate in the research interview. If there were two eligible children in a household, we randomly selected one child to participate in the research interview. This study included a subsample of 159 parent–child dyads assigned to the intervention condition. We analyzed interview data provided by participants at baseline regardless of the extent to which they participated in SFP 10–14 MF or completed follow-up research interviews. Families in the control condition were not included in these analyses because they were not offered participation in SFP 10–14 MF.

Procedures

Parents expressed interest in the SFP 10–14 MF trial by providing their contact information via the public project website or by contacting the research team by telephone or email. Community and military partners also were able to submit contact information for interested parents through the website, with their permission. Research staff sent additional project information to interested parents by email and followed up by telephone to screen them for eligibility and determine their interest in participating in the project. Staff explained the procedures and the SFP 10–14 MF program to parents during the recruitment call; parents who agreed to participate in the project did so with the understanding that participation would include program participation if their family was randomized to the intervention condition. Parents provided verbal consent via telephone to participate in the project and for their children to participate in the project; children provided verbal assent via telephone. Trained interviewers collected baseline data via separate telephone interviews with parents and youth, recording participant responses on paper and pencil questionnaires. The completed instruments were entered into an electronic format by a professional data entry vendor. Families were randomized to intervention or control conditions after the baseline parent interview was complete; families were stratified by military component (Active Duty or National Guard/Reserves) and geographical area before randomization.

Families assigned to the intervention condition were offered the SFP 10–14 MF program; program sessions were scheduled when at least five families were recruited and randomized to the intervention condition in each area to form a group. Families assigned to the control condition were not offered any project programming, but they did have normal access to any existing services or programs. Families assigned to the intervention condition were not restricted from accessing any services they normally would before, during, or after program implementation. Parents and children attended the SFP 10–14 MF program sessions together, and if the household had any additional children aged 10 to 12, they also were invited to participate. Child care was available for younger children at no charge to parents. Sessions generally took place in community organization or military-connected facilities (e.g., local YMCA, USO), and a meal was served before or after each program session. Group size ranged from two to 12 families (average was five). To offset transportation expenses, parents were offered a $10 cash incentive for each session they attended.

Similar to the original SFP 10–14 program, the SFP 10–14 MF included seven weekly 2-hour sessions, with parents and youth meeting separately in the first hour and joining together as a family for the second hour. In the first hour, parents learned how to build a stronger relationship with their child by showing love and support, using effective communication approaches (e.g., "I" statements), setting limits, sharing expectations, and using rewards and consequences. Youth learned to identify goals and dreams for the future, strategies for dealing with peer pressure, and healthy coping skills and to develop an appreciation for their caregivers' parenting roles. During the second hour, families engaged in structured activities, games, and projects designed to build parent–youth communication skills and to develop mutual appreciation by learning more about each other and their family (e.g., creating family

trees). Military-themed examples related to some of the most common challenges experienced by both Active Duty and National Guard/Reserve component families (e.g., returning from deployment) were integrated throughout the SFP 10–14 MF program. Program activities and materials also were tailored to include military symbols (e.g., oak leaf, challenge coins) to render them more salient to this population.

Sessions were led by three trained facilitators (one for the parent session and two for the youth session; all three were involved in the family session) who were supervised by a site coordinator and the research team. Implementation team members were identified with assistance from community-based and military-connected family service organizations and had backgrounds appropriate to the delivery of family-focused and substance misuse prevention programming, including experience leading groups of parents and youth, working with military families, and handling sensitive or difficult situations with families. The state's USO assisted with promoting the opportunity for site coordinators and facilitators via their social media outlets and various in-state locations; many were military spouses or parents. Site coordinators and facilitators received a 3.5-day training and certification from SFP 10–14 master trainers, one of whom had a military background. Trainings were supervised by the research team. Site coordinators received supervision and technical assistance from the research team and in turn provided support to facilitators. Site coordinators and facilitators worked with the research team to connect with families about the program schedule, encourage them to attend the sessions, and follow up with any families that missed a session. Facilitators were also trained to observe groups that others led. Observers attended selected sessions to assess implementation quality. Fidelity ratings were high on average; according to observers, 91 percent of intended activities were completed. Facilitator quality and family engagement were rated as a 3.8 and a 3.7 on a 0 to 4 scale, respectively.

Measures

Program attendance at the family level was analyzed in four different ways. Any attendance was a dichotomous variable coded 1 if family members attended any of the seven sessions. Number of sessions attended ranged from 0 to 7, and sessions were counted as attended if any family member attended. As an indicator of program retention, the number of sessions attended was also examined in the subsample of families that attended at least one session (in which the range was 1 to 7). A dichotomous variable represented whether each family attended at least four sessions. This level of participation met the threshold for "graduation" from the program.

Demographic characteristics included geographical area of residence (typically defined as county; in one case, two adjacent counties that were both close to a military installation were combined); military component (i.e., Active Duty vs. National Guard/Reserves); whether the participating parent, a spouse/partner, or both were military service members; participating parent sex, age, education (i.e., eight categories ranging from "some high school or less" to "graduate/professional degree" or "other professional military education"), employment status (i.e., not working for pay, working full time, working part time), household composition (i.e., two parents of the child living together vs. else), and race/ethnicity (i.e., Hispanic, Non-Hispanic White, Non-Hispanic Black, Other); family income; number of children in the home; and child sex and age.

Variables assessing deployment history of the military parent included whether they had been deployed since 2001, the number of deployments, amount of time deployed since the birth of the child (from 1 = almost the whole time to 5 = none or almost none of the time), and the recency of their last return from deployment (from 1 = self/spouse/partner is currently deployed to 5 = 2 years or more). Parents reported these variables.

Wait time for the program was calculated in days between the date of the baseline parent interview and the start date of the program group in the area where the family lived.

We measured parent–child affective quality with two 3-item subscales in the parent interview assessing positive (e.g., "How often did this child act loving and affectionate toward you?") and negative (e.g., "How

often did this child argue with you whenever you disagreed about something?") affective quality in the past month, measured on a 5-point scale from almost always to almost never. We adapted these scales from the ones used in evaluation of the original SFP 10–14 (Spoth et al., 1998); Cronbach's alphas were 0.77 and 0.57, respectively. We assessed family conflict with two separate items in the parent interview: "When this child does something wrong, how often do you lose your temper and yell at him or her?" was measured on a 5-point scale from always to never and "We fight a lot in our family" was measured on a 5-point scale from strongly agree to strongly disagree. These items were drawn from measures of harsh discipline (Thornberry, 1988) and family cohesion (Moos & Moos, 2002) and were used in the original SFP 10–14 research study (Spoth et al., 1998). Family service utilization was reported by parents using the following item that was coded dichotomously and developed for the study: "During the last two years, has your family been involved in services delivered to families who are having problems?" Parent mental health was an average of three items about overall mental or emotional health and symptoms of depression and anxiety in the past year (Achenbach & Rescorla, 2003). Items were re-scaled to align on a 3-point scale; Cronbach's alpha was 0.64. We measured parent substance use using two separate items in the parent interview: "How often do you have a drink containing alcohol?" was measured on a 5-point scale from never to 4 or more times per week, and "Do you currently use tobacco (cigarettes, pipe, cigars, chewing tobacco)?" was a dichotomous variable. We measured youth conduct problem behavior in the past year with five items in the youth interview (e.g., "How many times did you skip school or classes without an excuse?") on a 3-point scale from never to more than once. These were adapted from the Conduct Problems Index of the National Youth Survey (Elliott et al., 1983). Each item was dichotomized, and a count variable from 0 to 5 was created by summing the items.

Analysis

Initial bivariate logistic and linear regression analyses examined associations between each demographic variable and the four attendance (dependent) variables. Demographic variables that were statistically significant predictors of any attendance variable were then entered as controls with each deployment variable, wait time for the program, and psychosocial variable in separate models predicting each attendance variable. If there were at least two independent variables that were statistically significant predictors of each attendance variable in the separate models, we then combined these in a final model for each attendance variable.

Results

The majority of parent participants (79 percent) were mothers, and 31 percent were currently in the military. Military service members were mostly Active Duty (74 percent) and in the Army (49 percent), Marines (25 percent), or Air Force (20 percent). Most (92 percent) parent participants were married, and 74 percent of households included both parents of the participating child. Parents were age 37 on average (standard deviation [SD] = 4.9; range = 27 to 50). A majority of parents reported that they were non-Hispanic white (57 percent); 18 percent of parents reported that they were Hispanic, and 18 percent reported that they were non-Hispanic Black. Nearly 92 percent of parents had at least some college education; 45 percent had a Bachelor's degree, graduate/professional degree, or other professional military education. On average, participating youth were 11 years old (SD = 0.8) and 54 percent were female.

Table 1 presents descriptive statistics on the study variables. Overall, 39 percent of intervention condition families attended a program session; however, the majority (71 percent) who attended any sessions attended at least four of the seven. In bivariate models, geographic area of residence was the only demographic variable significantly associated with attendance (for three of the four dependent variables). Therefore, we included area of residence as a control variable in all additional models.

As shown in Table 2, measures of deployment (yes/no), family conflict (parent yelling), parent substance use (tobacco), family service utilization, and youth conduct problem behavior each predicted one or

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Table 1. Descriptive statistics on attendance, deployment, wait time, and psychosocial variables

	Valid N	Mean	Standard Deviation
Total number of sessions attended	159	1.77	2.55
Among subsample of attenders	62	4.55	2.00
Number of deployments since 2001	158	3.97	3.54
Time deployed since birth of target child[a]	152	3.55	0.96
Recency of return from deployment[b]	152	3.97	1.46
Wait time for the SFP 10–14 MF program (in days)	153	212.39	155.16
Positive parent–child affective quality[c]	159	4.03	0.97
Negative parent–child affective quality[c]	159	1.68	0.70
Parental yelling at child[d]	159	2.12	0.66
Family fights a lot[e]	158	2.10	0.97
Parent mental health[f]	159	2.74	0.43
Frequency of alcohol use[g]	159	2.30	0.96
Youth conduct problem behavior[h]	159	0.63	0.86
	Valid N	**No**	**Yes**
Attendance at any sessions	159	61%	39%
Attendance at 4 or more sessions	159	72%	28%
Among subsample of attenders	62	29%	71%
Deployed since 2001	159	4%	96%
Family service utilization (past 2 years)	156	81%	19%
Current tobacco use	159	89%	11%

SFP 10–14 MF = Strengthening Families Program 10–14 for Military Families.

[a] 1 = Almost the whole time; 2 = A lot of the time; 3 = About half of the time; 4 = Some of the time; 5 = None or almost none of the time.

[b] 1 = Is currently deployed; 2 = Less than 6 months; 3 = 6 months or more but less than 1 year; 4 = 1 year or more but less than 2 years; 5 = 2 years or more.

[c] Items were reverse-coded as 1 = Almost never; 2 = Occasionally; 3 = About half the time; 4 = Usually; 5 = Almost always.

[d] 1 = Never; 2 = Occasionally; 3 = About half the time; 4 = Usually; 5 = Always.

[e] 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral or Mixed; 4 = Agree; 5 = Strongly Agree.

[f] 1 = Poor overall mental health/Felt depressed more than once for two continuous weeks or more during past 12 months/Felt anxious for most of the time for 4 months and more during past 12 months; 2 = Fair overall mental health/Felt depressed one time for two continuous weeks or more during past 12 months/Felt anxious for most of the time for one to three months during past 12 months; 3 = Good to Excellent overall mental health/Had not felt depressed for two continuous weeks or more during past 12 months/Had not felt anxious for most of the time during past 12 months.

[g] 1 = Never; 2 = Monthly or less; 3 = 2–4 times a month; 4 = 2–3 times a week; 5 = 4 or more times a week.

[h] A count across five dichotomized items coded as 0 = never and 1 = Once and more, ranging from 0 to 5.

more dimensions of attendance, controlling for area of residence. Wait time for the program was not significantly associated with any of the attendance outcomes after controlling for area of residence. In the full sample of families, those who had received services for existing issues were more likely to attend any sessions. Youth conduct problem behavior was positively associated with the number of sessions attended and likelihood of attending at least four sessions. Among families that attended any sessions, those in which a parent had been deployed attended more sessions than those that had not experienced deployment, parental yelling at the child was positively associated with the number of sessions attended, and parental tobacco use was negatively associated with the number of sessions attended. These associations were also observed in the final model in which the three significant predictors were included, and the overall model was significant: $F(4, 57) = 5.00$, $P = 0.002$.

Discussion

This study is one of few examining predictors of attendance in family-focused prevention programming among military families, and it extends

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Table 2. Results of regression models (controlled for area of residence)

Predictor	Any Attendance (0/1)				Attended 4+ sessions (0/1)				Number of sessions attended				Number of sessions attended (among attenders)			
Separate Models	OR	95% CI		*p*	OR	95% CI		*p*	B	SE	*t*	*p*	B	SE	*t*	*p*
		LL	*UL*			*LL*	*UL*									
Deployment[a]	0.424	0.081	2.221	0.310	2.624	0.284	24.275	0.395	−0.319	1.000	−0.319	0.750	**−2.512**	**1.015**	**−2.476**	**0.016**
# deployments	0.931	0.832	1.042	0.215	0.964	0.861	1.079	0.523	−0.019	0.058	−0.323	0.747	0.157	0.100	1.571	0.122
Time deployed	1.121	0.772	1.626	0.549	1.422	0.932	2.169	0.102	0.190	0.219	0.868	0.387	0.388	0.249	1.559	0.125
Recency of return	0.995	0.779	1.270	0.966	0.980	0.754	1.274	0.878	−0.089	0.144	−0.621	0.536	−0.058	0.169	−0.341	0.735
Wait for program	0.998	0.995	1.002	0.341	0.999	0.995	1.003	0.564	−0.002	0.001	−1.764	0.080	0.000	0.002	0.255	0.800
Pos. affective qual	1.216	0.843	1.754	0.295	0.985	0.668	1.453	0.940	0.092	0.212	0.435	0.664	−0.285	0.255	−1.118	0.268
Neg. affective qual	0.660	0.396	1.100	0.111	0.808	0.466	1.399	0.446	−0.352	0.289	−1.217	0.225	0.114	0.426	0.268	0.789
Par yelling	1.342	0.781	2.306	0.286	1.492	0.843	2.640	0.169	0.529	0.306	1.728	0.086	**1.062**	**0.494**	**2.148**	**0.036**
Fam fights	0.956	0.672	1.361	0.803	1.064	0.727	1.557	0.750	0.114	0.211	0.543	0.588	0.210	0.275	0.765	0.448
Fam service util[b]	**4.983**	**1.792**	**13.854**	**0.002**	2.604	0.986	6.876	0.053	0.683	0.519	1.317	0.190	−0.753	0.579	−1.301	0.198
Par mental health	0.697	0.318	1.527	0.367	0.957	0.419	2.184	0.917	−0.464	0.479	−0.969	0.334	0.367	0.584	0.628	0.532
Par alcohol use frequency	1.312	0.903	1.906	0.154	1.062	0.703	1.603	0.776	−0.018	0.213	−0.086	0.932	−0.510	0.272	−1.878	0.065
Par tobacco use[b]	0.811	0.262	2.506	0.716	0.346	0.071	1.684	0.189	−0.921	0.661	−1.393	0.166	**−1.805**	**0.853**	**−2.116**	**0.039**
Youth conduct problem behavior	1.417	0.951	2.112	0.087	**1.792**	**1.154**	**2.783**	**0.009**	**0.627**	**0.233**	**2.692**	**0.008**	0.521	0.277	1.883	0.065

Combined Model					B	SE	t	Sig.
Deployment[a]					**−2.740**	**0.943**	**−2.907**	**0.005**
Par yelling					**1.091**	**0.454**	**2.403**	**0.020**
Par tobacco use[b]					**−1.821**	**0.782**	**−2.328**	**0.023**

CI = confidence interval; Fam = family; LL = lower limit; Neg. = negative; OR = odds ratios; Par = parent; Pos. = positive; qual = quality; UL = upper limit; util = utilization. Bolded values indicate significance ($P < 0.05$).

Note: A combined model was not needed for *any attendance*, *attended 4 sessions or more*, or *number of sessions attended*, because there was not more than one significant independent variable in the separate models for each of these dependent variables.

[a] 1 = yes; 2 = no.

[b] 0 = no; 1 = yes.

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prior work by examining predictors across multiple domains (i.e., demographic, practical or schedule-related, military-specific, and psychosocial). In general, families exhibiting more risk (i.e., parent deployment, more parental yelling, involvement in services for families having problems, and more youth conduct problem behavior) were more likely to attend the program or attend more sessions. The only exception was that among families that attended any sessions, families with a parent who used tobacco attended fewer sessions than families with a parent who did not. Youth conduct problem behavior was the most consistent predictor; it was significant for two of the four dependent variables and marginally significant for the other two. These results support the notion of linkages between health belief predictors (i.e., perceived need) and program participation (Spoth et al., 2000b).

These findings are seemingly inconsistent with the FOCUS study, which found that parent and family psychosocial problems were negatively associated (while youth adjustment was not associated) with attendance in a family resilience-building program (Lester et al., 2012; Lester et al., 2016), but findings are apparently more consistent with the larger body of research on civilian families where most studies have found that families that reported relationship challenges or youth behavior problems were more likely to participate in parent training and other family-focused prevention programs similar to SFP 10–14 MF (Baker et al., 2011; Finan et al., 2018; Fleming et al., 2015; Perrino et al., 2018; Winslow et al., 2009). It is worth noting that the FOCUS study involved Active Duty Navy and Marine families with children ages 3 to 17 (average age was 7) and evaluated a program delivered to individual families. Future work should examine whether different subpopulations of military families (e.g., different branches or components, children of different ages or risk levels) experience different participation challenges or have different motivations for participating in different types of interventions (e.g., individual vs. group-based).

Unlike military and civilian studies showing that demographic characteristics like sex, age, education, and employment impact family participation, this study did not find demographic correlates of attendance, other than area of residence. Interestingly, deployment history was positively associated with the number of sessions attended among attenders, which suggests that the stressors associated with deployment and reintegration may not impede continued family attendance or that families experiencing these stressors may find the program particularly helpful. This association is inconsistent with research on the ADAPT model, for which deployment was associated with lower participation online but did not seem to impact face-to-face attendance (Doty et al., 2016). Further investigation of the associations between different aspects of deployment (e.g., incidence, length, recency) and attendance and retention among military families, especially with respect to different program delivery modes, is warranted.

The finding that parent tobacco use was negatively associated with retention among attending families might suggest that substance use among parents may inhibit further attendance at a program that addresses communication with children about substance use (although we did not find associations for parent alcohol use). Perhaps parents who used tobacco felt less comfortable continuing sessions that they knew would explore substance use pressures and rules in more depth. Alternatively, tobacco use may serve as a marker for an unmeasured parent or family characteristic that made continued attendance a challenge.

It is notable that there were different predictors of attendance in the full sample versus continued attendance among the subsample of attenders. Indeed, other studies have demonstrated that family engagement in prevention programs is a dynamic process (Coatsworth et al., 2018), and there may be different predictors of initial enrollment versus total attendance or attendance in different parts of a program (Perrino et al., 2018). Perhaps families that had not experienced deployment or experienced less parent–child conflict did not gain as much from the program sessions or did not feel that they needed the program after attending one or two sessions. Although most of the families that attended any sessions attended more than half of them, it is important to better understand reasons why some

families discontinue attendance and develop targeted strategies to keep them engaged.

Consistent with other literature showing limited participation in supportive services among military families (Aronson et al., 2018), less than half of families attended any SFP 10–14 MF program sessions. In some cases, sessions were conducted with fewer than the recommended number of families attending, which may have negatively affected implementation quality and program effectiveness. Although this study did not systematically collect information about direct barriers to attendance, some nonattenders provided information about relocations, deployments, competing activities, or other logistical or scheduling barriers as reasons why they were unable to attend sessions. Not surprisingly, these challenges seemed more pronounced for families that had to wait longer to start the program so that there would be an adequate number of families recruited for the study and added to a program group within their area. Recruitment duration (and associated wait time for the program) varied widely by geographic area; therefore, controlling for area in the analyses may have accounted for the impact of long wait times on attendance.

Strengths of this study include the breadth of predictors examined, the measurement of predictor variables before intervention group assignment, and the measurement of predictors from both parents and youth. However, our measurement of the dependent variable was limited to attendance. Although facilitators and observers reported high levels of family engagement in the program sessions, a more fine-grained measure of family participation in program sessions and responses to program material may be associated with different predictors (Mauricio et al., 2018). Another limitation is that we were unable to reach many families to understand why they did not attend sessions, so data on those barriers are anecdotal. In addition, we did not measure group dynamics or facilitator characteristics, which have been associated with attendance and retention in prior research on programs targeting at-risk youth (Bloomquist et al., 2009; Hooven et al., 2013).

Lessons Learned for Practice and Research

Recruiting families for in-person programming is difficult, and military families face additional barriers that may require creative strategies and extra engagement efforts to maximize attendance. Given that military families tend to face frequent moves and disruptions in routine, programming should commence as quickly as possible to maximize their ability to attend. Practitioners may be able to use predictors of attendance to target their efforts toward particular families that are less likely to attend. In this study, families that reported experiencing various challenges directly related to the program objectives and content were more likely to attend. This is important because such families may have the most room for improvement. However, past research on the original SFP 10–14 has shown effectiveness for both high- and low-risk families when sufficient numbers of families from across the risk spectrum participated in the program (Spoth et al., 2006). Should the program be effective for military families, findings suggest that staff responsible for family engagement in the program may need to emphasize the potential benefits of participation for all families, not just those who have specific needs for support. They should also engage in efforts to connect with families by phone or email between sessions to promote continued attendance. Contacting parents who miss classes may provide the added benefit of better understanding specific barriers to attendance and helping parents to overcome them (Snell-Johns et al., 2004).

In addition, program providers may need to offer alternative, more flexible modes of program delivery (e.g., online or home-based) to achieve better participation and engagement (Duppong-Hurley et al., 2016; Finigan-Carr et al., 2014; Love et al., 2013). Programs that offer a combination of in-person sessions and online material have been successful in engaging military families; in the ADAPT study, those who attended face-to-face sessions engaged online more than non-attendees (Zhang et al., 2018). Relatedly, it would be beneficial to test a multicomponent approach to engaging families (Winslow et al., 2016) with military populations.

In conclusion, future research should continue to examine program-relevant and military-specific

experiences and challenges (among both service members and their co-parents) in relation to program attendance and engagement. Unpacking the effects of past and current deployments, clarifying associations between parental substance use and program attendance, and understanding why military families with fewer risk factors do or do not attend sessions will help advance this line of inquiry. This work should accompany ongoing effectiveness research to test the outcomes of family-based prevention programs like SFP 10–14 MF for varying military populations and settings.

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