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Morale, Welfare and Recreation Programs and their Effect on Readiness and Retention

By Richard Fafara and Dave Westhuis

Decision making about morale, welfare and recreation (MWR) may soon have an important resource at its disposal. A recurring question of particular interest to the Army is "Does MWR contribute to Soldier readiness and retention?" The short, simple and intuitive answer is "yes."

Survey data suggest that Soldiers and Families value MWR programs and facilities, use them frequently, and consider them important to morale, retention and readiness. But program managers, policy makers, and researchers have been confronted by the challenge of getting behind what may be intuitively obvious and supported by survey data and being able to demonstrate MWR's contribution to readiness. A comment in a recent RAND Corp. study regarding Family support programs holds true of all MWR programs.

"Questions about program effectiveness have endured since the early days of the all-volunteer force, but progress toward answering these questions has been very slow, which suggests how difficult this problem has turned out to be. Problems persist in determining the correct sampling design and the analytic and statistical approaches to follow. Overdue is a valid and reliable research design for the collection and analysis of information to assess the performance of the variety of family support programs."[1]

Direct and Indirect Links

The Family and Morale, Welfare and Recreation Command (FMWRC) and the research community have been wrestling with this issue for a long time and have attempted to address it by a variety of methods. Two reports have synthesized and evaluated those efforts.[2] Each report identified possible links (direct and indirect) between MWR usage and readiness dimensions, but identified serious limitations in studies to date.

First, whether or not the links identified between programs and outcomes could be generalized was questionable; second, few studies

	Levels of Effect Size (Practical / Clinical)	Variable Relationship	Effect Size Range -2 to +2 (Can be positive or negative)
Large	Ability to Apply	Spouse's support for Soldier remaining in Army & Soldier's Intent	.90
Medium	Practically/ clinically significant	Helpfulness of FAC during the last deployment and desire for Soldier to stay in Army	.45
Small	Educationally significant	Satisfaction with the PX and desire to remain in the Army	.15

Figure 1 – Effect Size: Standards
Any effect size is important. Effect size shows us the strength of the relationship between two statistically significant variables.

Figure 2 – Emotional Attachment (EA) to Army and Retention
The desire to stay in the Army increases as emotional attachment to the Army increases. (Effect Size = .93) (SSMP)
Usage of MWR has a strong positive impact on emotional attachment, which has a positive efffect on retention.

provided empirical support for the links; third, some studies did identify statistically significant links between use and outcomes but were unable to specify the strength of the links.

Many readers of research focus only on "statistically significant" findings, without really understanding what this means. When a statistic is significant, one can be sure that the statistic is reliable and that the difference between the groups is real and not due to chance. Statistical significance does not mean the finding is important or that it should be used as the primary standard for making program decisions. Because of the way statistical significance is computed when a sample size is large, very small differences will be detected as statistically significant. This does not necessarily mean that the difference is "large" or important enough to warrant the attention of policy makers or program managers; it only means that the difference is most likely not due to chance.

Statistical Significance

In brief, statistical significance indicates how sure one can be that a difference between groups might exist. To say that a significant difference or relationship exists only tells half the story. One wants to be very sure that a relationship exists, but the follow-on question is whether or not it is a strong, moderate, or weak relationship.

After identifying a significant relationship, it is important to evaluate its strength. This is done by calculating the "effect size" of the difference.

Effect size (ES) measures the strength of the relationship between two variables. In practical situations, especially clinical settings, effect sizes are very helpful for making decisions. The effect size usually is calculated as the difference between the mean values of the two groups, divided by the standard deviation: ES = (mean of group 1 - mean of group 2)/ standard deviation. Generally, the larger the effect size, the greater the importance of the difference between the groups.

Jacob Cohen, an expert in this area, proposed the following levels of importance or standards for understanding effect sizes: "large" (0.9 or greater), "moderate" (0.45), and "small" (0.15).[3] For example, the effect size between satisfaction with the Post Exchange and desire to remain in the Army is small, whereas the effect size between a spouse's support for a Soldier remaining in Army and the Soldier's intent to remain is large. (See Figure 1.)

Methodology

In an attempt to go beyond the limitations of existing studies of links between MWR usage and readiness dimensions,[4] an analysis of Army-wide data from active-duty Soldiers from the Army-wide "Spring 2005 Sample Survey of Military Personnel (SSMP)" was undertaken. The purpose of the analysis was 1) To determine if statistical significance exists between MWR usage and four outcomes (desire to stay in Army, unit teamwork/esprit de corps, career issues, and satisfaction with quality of Army life), and (2) If so, measure the strength (effect size) of the associations.

The notion of "Emotional Attachment" or an individual's emotional or affective linkage to an organization played an important role in the analysis. Social science studies have established that employees report higher levels of affective commitment to an employer when they feel their employer has invested in them.[5] Other research suggests that affective organizational commitment is linked with increased job satisfaction, commitment, motivation/effort, and decreased absenteeism and turnover.[6] Each of these outcomes is an essential dimension of readiness.

The link between affective commitment to the Army and increased Soldier retention was borne out by the analysis of SSMP data. (See Figure 2.) We found that the desire to stay in the Army increases as emotional attachment to the Army increases. Equally as important, the effect size of this relationship is very strong (.93).

In order to place usage of MWR and emotional attachment to the Army in a broader and meaningful context, we compared the Effect Size of MWR's impact on emotional attachment to the Army with those of other major benefits/aspects of Army life: benefits/retirement, medical and dental care, and

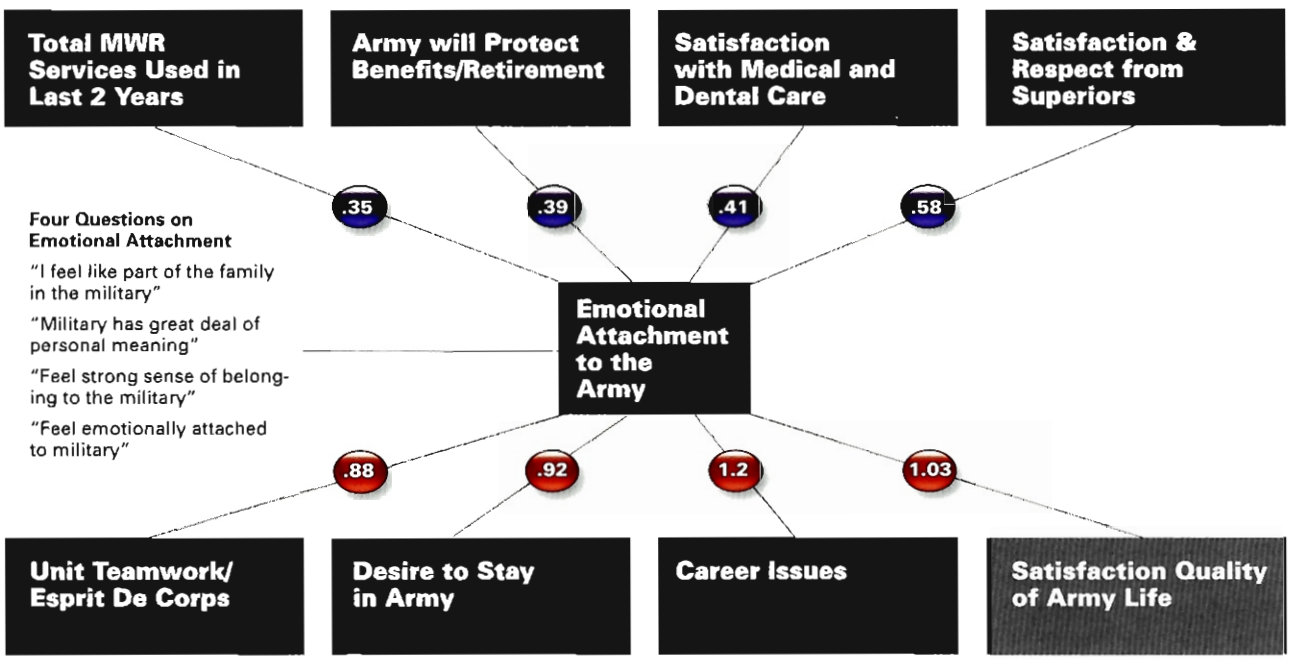

Figure 3 – Direct and Indirect Impacts of MWR Usage

Large Medium Small

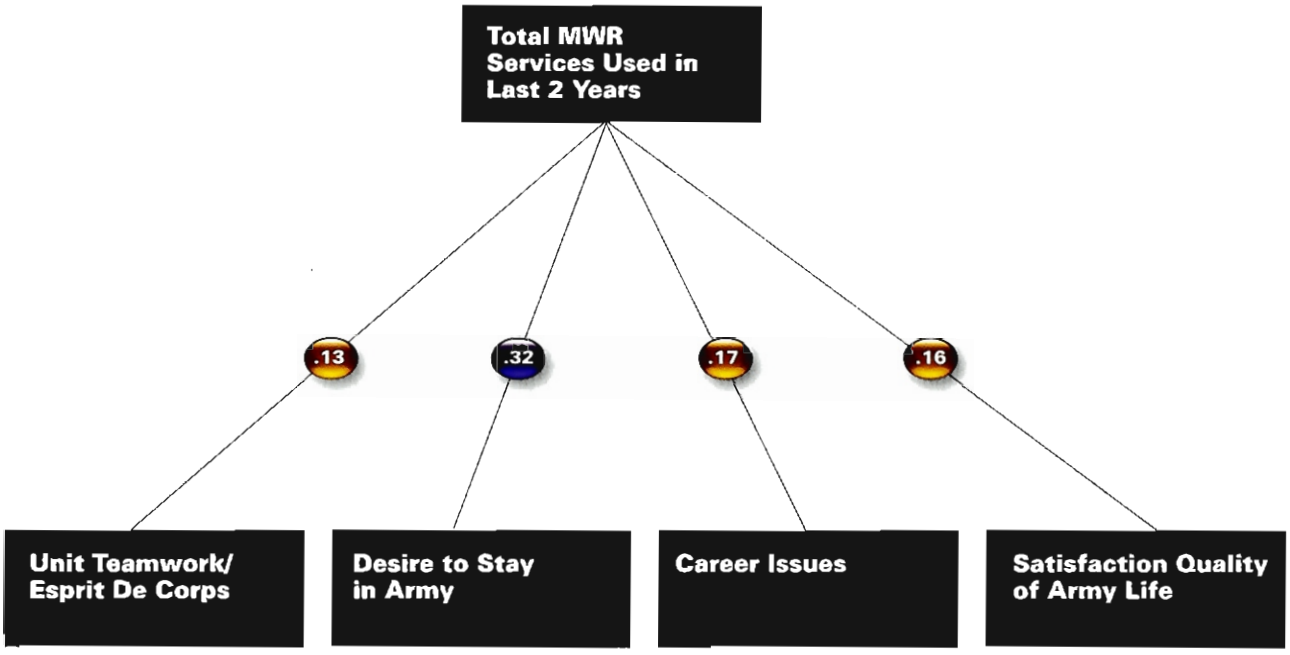

Figure 4 – Direct Impacts of MWR Usage

Large Medium Small

respect from superiors. The ES of use of MWR and emotional attachment to the Army (.35) compared very favorably with the latter three (.39, .41, and .58 respectively). Likewise, the ES of emotional attachment to the Army based on statistically significant relations with the four readiness outcomes is impressive: .88 unit teamwork/ esprit de corps, .92 desire to stay in the Army, 1.2 career issues, and 1.03 satisfaction with quality of Army life. (See Figure 3.)

As can be seen from Figure 4, use of MWR also had a statistically significant direct relationship with these four readiness outcomes. The effect sizes for these relationships range from moderate to small. Thus, MWR usage has both direct and indirect (via emotional attachment) effects on key Army outcomes.

Finally, the total direct and ES of MWR usage on each of the four readiness outcomes is very impressive. The total ES of usage of MWR on desire to stay in the Army, career issues, and satisfaction with Army life are in the "large" range; the one ES of usage of MWR on unit teamwork/esprit de corps is in the "medium" range. (See Figure 5.)

Implications and Conclusions

These preliminary findings clearly indicate that use of MWR contributes to readiness in a variety of ways. MWR has a positive effect on Soldier emotional attachment to the Army, which, in turn, has a strong, indirect, positive effect on all four readiness outcomes. Use of MWR also was found to have a medium, positive, direct effect on retention and a small effect on the three other readiness outcomes. And the combined, direct effect of MWR on each of the four outcomes is impressive: .44 on unit teamwork/esprit de corps, .64 on desire to stay in the Army, .59 on career issues, and .52 on satisfaction with Army life.

A Big Step Forward

More work remains to be done. As with any exploratory study, these initial results based on SSMP data will have to be duplicated and then replicated on other large scale data bases before playing a part in influencing any program and policy decisions. FMWRC has analyses underway to attempt to replicate and validate the initial SSMP results and include the perspective of spouses of active duty Soldiers by analyzing data from the 2004/2005 Survey of Army Families (SAF) V. These follow-on analyses will attempt to determine

the strength of the effect on readiness and retention outcomes that subgroups of MWR services such as Army Community Service, recreation programs or child and youth programs might have. They also will determine whether or not MWR usage and effect size varies based on rank and marital status of Soldiers, living on- or off-post, Soldier/spouse ethnicity, continental United States (CONUS)/ outside continental United States (OCONUS), Soldier deployment status, and gender of the Soldier and spouse.

In addition to contributing to a better understanding of work and nonwork life needs that influence Soldier retention and turnover, the findings on MWR, when replicated, will likely have important policy and program implications. One could, conceivably, facilitate organizational commitment by reinforcing or expanding MWR programs or specific categories of MWR programs. One could also use modeling studies to attempt to detect additional links between MWR usage and key Army outcomes.

We are optimistic that the analyses of MWR will constitute a big step forward in enabling the Army to demonstrate with precision MWR's important contribution to Soldier readiness.

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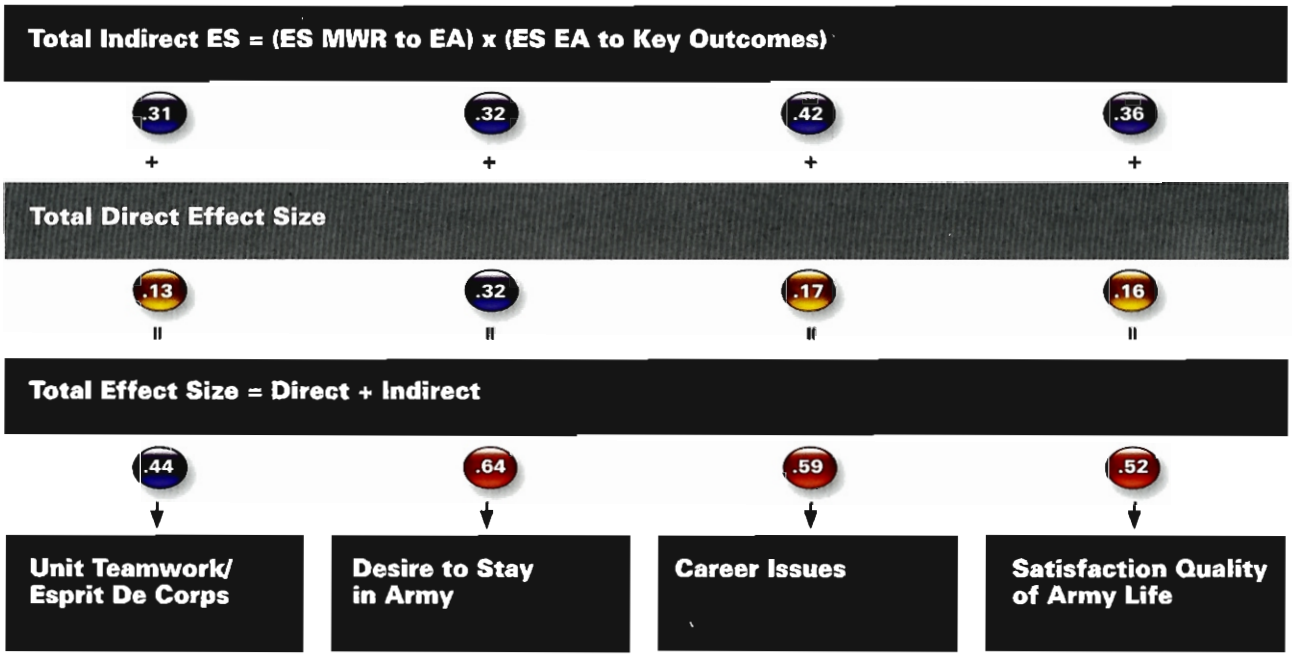

Figure 5 – Total Effect Sizes (ES) of MWR Usage

Large Medium Small