Depression Trajectories in Military Couples

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Abstract

We estimated longitudinal depression trajectories separately at the individual and group levels for National Guard members and their spouses (N = 230 couples) before, during, and after a deployment and then predicted subgroup (class) membership based on background characteristics. Such an approach may assist practitioners with identifying optimal times for mental health intervention for subgroups conforming to specific patterns of depression.

Introduction

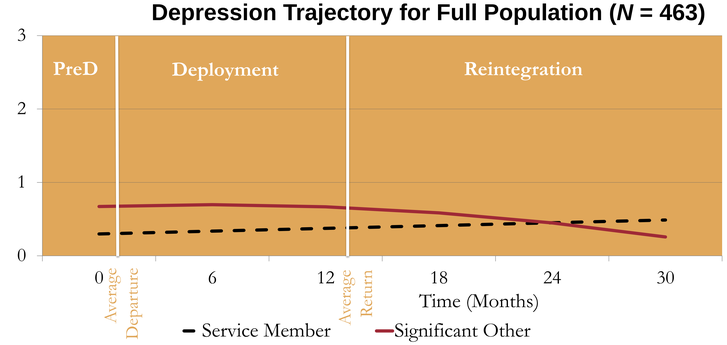
- Deployment-related stressors have been linked to depression in military service members and their at-home spouses, which may elevate their risk of suicide (Mansfield et al., 2010).
- Research suggests that depression does not conform to a homogenous pattern— using average levels (i.e., statistical means) to evaluate trends of depression within a sample obscures underlying variation (Bonnano & Mancini, 2010).
- Deviations from the average trajectory provides informative cues for understanding individual differences in outcomes that are otherwise obscured by measures of central tendency (Bengtson & Allen, 1992), which is consistent with life course theory's assertion that individuals deviate around the average trajectory (Elder 1998).

Method

- Trained interviewers collected data from National Guard families at predeployment (1-16 weeks before departure), during deployment (3 and 8 months after departure), and after deployment (1, 6, and 11 months following return). We then recoded these time points to reflect 6 month intervals.
- Participants completed the 10-item CES-D (Radloff, 1977), in which they reported the frequency of thoughts or emotions using a scale of 0 (*Rarely or none of the time [less than once a day]*) to 3 (*Most or all of the time [5-7 days]*). We used 5 items that fit well in a latent factor.
- Linear and quadratic trajectories were estimated separately for service members and their significant others using latent growth curve modeling.
- Using growth mixture modeling, we estimated subgroups (classes) among individuals with distinct, homogenous depression trajectories. Multinomial logistic regression was used to predict class membership based on individual characteristics.

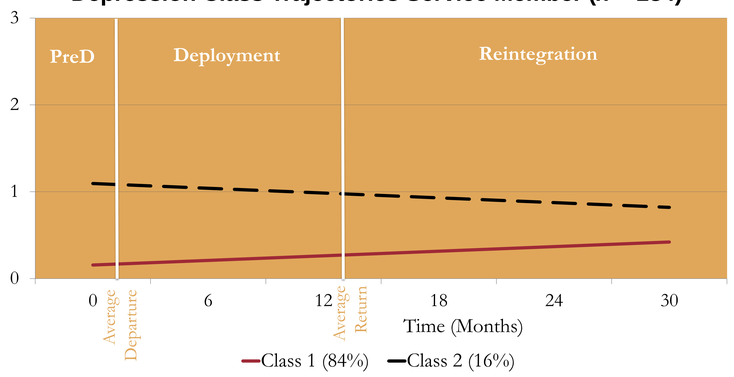
Results: Full Population

Depression Trajectory for Full Population (N = 463)



Results: Service Members

Depression Class Trajectories Service Member (n = 234)

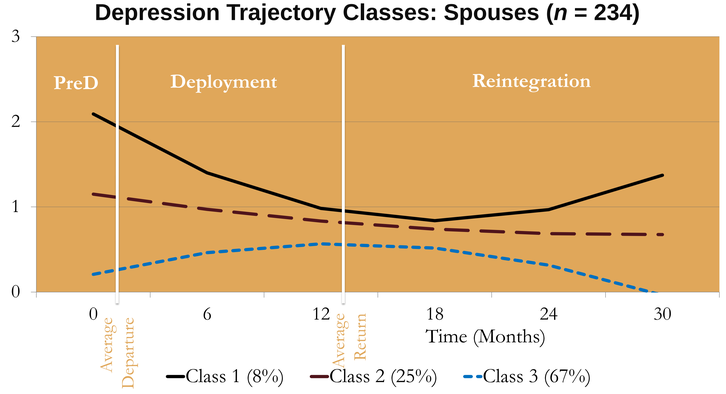


Background Characteristics:	Class 1 vs. Class 2 Odds Ratio	95% CI	
Age	1.02	0.96	1.08
Educational Level	0.74+	0.53	1.03
Number of Children in Home	0.86	0.61	1.22
Income	1.55+	0.95	2.52
Number of Deployments	1.18	0.74	1.87

Service members who have lower levels of education and higher incomes are more likely to be in the largest class (class 1) relative to class 2. Depression increased across time in class 1 ($p < .1$).

Results: Spouses

Depression Trajectory Classes: Spouses (n = 234)



Results: Spouses (Cont…)

Predictors	Class 1 vs. 2 OR	95% CI	Class 2 vs. 3 OR	95% CI	Class 1 vs. 3 OR	95% CI
Age	0.98	0.87-1.10	1.01	0.96-1.07	0.09	0.85-1.10
Educational Level	0.65*	0.43-0.98	0.79*	0.64-0.98	0.81	0.53-1.26
Number of Children in Home	1.15	0.71-1.84	1.03	0.78-1.35	1.12	0.68-1.83
Income	1.04	0.58-1.86	0.87	0.64-1.18	1.20	0.66-2.18
Number of Deployments	1.09	0.63-1.88	0.85	0.59-1.23	1.28	0.68-2.40

Spouses with more education are less likely to be in class 1 and class 2, relative to class 3.

Conclusions

- We were able to identify and discriminate distinct profiles for service members and spouses based on depression trajectories during deployment.
- A two class model with linear trajectories was the best fitting model for service members and a three class model with quadratic trajectories fit best for spouses.
- Spouses' within-person change was significantly predicted by gender, educational attainment, number of children at home, and number of prior deployments, while age was the only predictor for service members' within-person change (table not shown).
- Few background characteristics significantly predicted class membership for service members and spouses.
- Future directions include predicting class membership from contextual variables, such as combat exposure and family characteristics, and determining depression trajectory correspondence between service member – spouse dyads.

References

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