Longitudinal Trends and Outcomes of the Facilities Initiative Studies: What we have learned

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Objectives: As part of the closures of Rideau, Huronia, and Southwestern Regional Centres, on March 31 2009 the Ministry of Community and Social Services commissioned the Facilities Initiative Studies to assess the processes and outcomes of the final wave of deinstitutionalization from these directly-operated facilities. The Quasi-Longitudinal was designed to assess the well-being of individuals with ID who had relocated to community settings across Ontario (Condillac, Frijters, & Martin, 2012). The study examined change over time within the facility prior to relocation and at two community visits following deinstitutionalization. This symposium will include 3 papers that examine longitudinal trends and predictors of key outcomes. The first paper examined a multi-level model to determine the patterns and predictors of psychotropic medication use over time. The second paper used multivariate regression analyses to examine healthcare access and utilization in the community. The third paper utilized a series of regression models to examine longitudinal predictors of Quality of Life in the community. The results of the research will be considered with respect to the strengths and limits of the service system in Ontario and the implications of these research findings for deinstitutionalization efforts in other jurisdictions.

Paper#1

EXAMINING LONGITUDINAL PATTERNS OF PSYCHOTROPIC MEDICATION USE BY INDIVIDUALS WITH INTELLECTUAL DISABILITIES RELOCATING FROM INSTITUTIONS TO COMMUNITY SETTINGS

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Objectives: On March 31, 2009, the last three institutions in Ontario were closed. The Facilities Initiative (FI) studies were conducted to assess the well-being of individuals with ID since relocating to community settings (Condillac, Frijters, & Martin, 2012). Examining deinstitutionalization outcomes is crucial for evaluating the extent to which individuals with ID are living improved lives since relocating. This study was conducted as a follow-up to the FI studies to specifically evaluate psychotropic medication usage following deinstitutionalization. The purpose of this study was to examine changes in psychotropic medication usage over time and to identify predictors of the total number of psychotropic medications that participants were prescribed.

Methods: Participants were individuals with ID who had lived in the last three remaining institutions in Ontario (i.e., Rideau Regional Centre, Southwestern Regional Centre, and Huronia Regional Centre; N = 120). Data was collected across three points in time (F1= last point in time in the facility, C1 = 1st community, C2 = 2nd community). Various proxy measures were collected on demographic variables (e.g., age, sex, etc.), adaptive functioning, challenging

behaviour, psychotropic medication usage, health status, and mental health status. A multilevel model was implemented to examine the within-person and between-person changes in the total number of psychotropic medications across three points in time. The multilevel model was also used to determine specific predictors of psychotropic medication usage.

Results: For the multilevel model, the number of psychotropic medications decreased significantly as individuals transitioned to community living (Facility to community change = -0.389*; Within community change = -.261*). The cognitive performance scale negatively predicted the number of psychotropic medications (Estimate = -.132*). However, the scale was inverted, which indicated that as cognitive performance improved, the number of psychotropic medications increased. Health instability (worse health), pain, and total number of psychiatric diagnoses were positive predictors of psychotropic medication usage (Estimates = 0.639*; 0.512*, and 0.271*, respectively). The influence of health instability (worse health) changed as individuals transitioned into the community, in that, individuals with worse health received a lower number of psychotropic medications as they relocated to community settings (Estimate = -0.765*). Aggression did not predict psychotropic medication usage in this model, possibly due to the measure used to assess challenging behaviour.

Conclusions: Specific predictors of the total number of psychotropic medications included health and mental health variables, which lends support to the incorporation of the biopsychosocial model into assessment and treatment models for individuals with ID. These findings could also be used to inform policies pertaining to psychotropic medication prescribing practices. The decrease in the total number of psychotropic medications over time may suggest a reduction in the reliance on psychotropic medications to manage challenging behaviour in community settings. As such, this study contributes to the body of research that supports the deinstitutionalization of individuals with ID.

References

Condillac, R., Frijters, J., & Martin, L. (2012). *Final report of quasi-longitudinal study.* Brock

      University, St Catharines.

Paper#2

PREDICTORS OF PRIMARY HEALTH CARE UTILIZATION BY FORMER RESIDENTS OF INSTITUTIONS IN ONTARIO

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Objectives: The purpose of this research was tri-fold: 1) to examine and report on age, adaptive functioning level, health status, level of problem behaviour, mental health status, psychotropic medication use, and primary healthcare utilization in the sample at each longitudinal time point; 2) to examine the relationships between the variables and; 3) to examine if the temporally consistent independent variables predict primary health care utilization.

Method: The data was collected from adults with developmental disabilities who moved from institutions to community settings as part of the Facilities Initiatives Studies (Condillac, Frijters,

& Martin, 2012). A stepwise linear regression was completed to analyze health care service utilization, with the total number of physician visits as the dependent variable. The predictors included age, adaptive functioning, health status, problem behaviour, mental health status, and psychotropic medication use. Age, adaptive functioning level, and log (10) health status were entered in the regression model simultaneously in the first block, while problem behaviour, mental health status, and total psychotropic medication use were entered in the second block. A logistic regression was also completed, with the groups divided into higher (13+) and lower health care use.

Results: Preliminary results from the 60 participants in the first community contact point show that the range of health care utilization was large (range = *1-31*), where 40% attended less than 4 appointments a year. The results of the preliminary linear regression model indicated that the above listed independent variables did not explain variance (F(6,60) = 1.471; R^2 = .143, p = .206). But mental health status significantly contributed to this model (β = 0.346; p = .024). The logistic regression was significant for predicting people in the high usage group (x^2 (7, N = 60) = 4.121, p = .002), with significant contributions from mental illness, total psychotropic medications, and the interaction between mental illness and health status, with a negative relationship between total psychotropic medications and high health care usage membership (Cox, 2009). Final results will be presented including the full sample of 120 participants at the first community visit, and new examination of the predictors at the second community visit.

Discussion/Conclusion: These preliminary results suggest that psychotropic medication use, mental health status, and the interaction of physical and mental health status are associated with high health care use. Knowing the variables which predict health care usage is important for support staff, policy makers, and administration staff so they can provide the best care for the people they support. Some data analyses are still in progress, therefore, the relationships between the variables at each timepoint will be presented at the conference.

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References

Condillac, R., Frijters, J., & Martin, L. (2012). *Final report of quasi-longitudinal study.* Brock University, St Catharines.

Cox, Alison. (2009). *Predictors of primary health care utilization by former residents of institutions in Ontario (master's thesis).* Brock University, St. Catharines, Ontario.

Paper#3

Predictors of Quality of Life in the community following deinstitutionalization: A longitudinal analysis

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Objectives: The purpose of this research was to examine the predictors of quality of life of individuals with ID who moved from the Facilities to the Community as part of the Facilities Initiative (Condillac, Frijters, & Martin, 2012). Our previous analyses found improvements in quality of life over time in the community, for individuals who left the facilities, however QOL remained sub optimal for some individuals, consistent with previous research on quality of life in community settings in Ontario. The purpose of the this study was (a) to examine the predictors of quality of life at the first community visit and the second community visit based on data collected at those times and (b) to determine the relative degree by which potential predictors gleaned from data collected before relocation (in the facility) influence quality of life in the community.

Method: Data were collected as part of the longitudinal component of the Facilities Initiatives Studies (Condillac, Frijters, & Martin, 2012). A model testing the the influence of six independent variables at the first community visit, including number of years spent in an institutional setting, health, problem behaviour, mental health status, adaptive behaviour, and frequency of enjoyed activities on the QOL indicator score was examined (Ireland, 2014). The model will be reconstructed to consistently use independent variables gleaned from measures that were available at each of the three time points to predict QOL in the community. The new model will be tested at the first and second community visits with the independent variables and outcome measures collected at that same time. Based on these results, both models will be retested with independent variables collected while participants were living in the facilities, and quality of life outcomes from the first and second community visit.

Results: Preliminary results from multiple regression analysis was conducted with the six factors identified above (years in institution, adaptive behaviour, participation in preferred activities, health, mental health, and problem behaviour) to determine if these factors could predict QOL satisfaction / importance among this sample. It was found that these six independent variables predicted only eight percent of the variance in QOL importance / satisfaction, and only years spent in an institutional setting

predicted this construct. The relationship was small and negative ($ß$ = -.214, p = .024), indicating that fewer years in an institutional setting was associated with higher QOL importance / satisfaction scores.

Discussion/Conclusion: The question as to whether participants status across key independent variables while in the facility influence quality of life measured in the community raises important considerations for individualized planning for relocation and for the necessity to potentially mitigate risks related to poor quality of life before relocation.

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References

Condillac, R., Frijters, J., & Martin, L. (2012). *Final report of quasi-longitudinal study.* Brock University, St Catharines.

Ireland, L. (2014). *Examining Predictors of Quality of Life of Adults with Intellectual Disabilities After Deinstitutionalization,* Brock University, St. Catharines, Ontario.