Title: A comparison of service users' and case managers' perceptions of service users' posttraumatic growth

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Abstract

Introduction: Youth can experience improved psychological changes (i.e., posttraumatic growth, or PTG) following the onset of psychosis. Case managers play an important role in the treatment of first episode psychosis but may be unaware that PTG occurs. This may negatively impact treatment outcomes, a topic that has yet to be explored. This study compared service users' PTG following a first episode of psychosis and case managers' perceptions of service users' PTG. **Methods**: Service users receiving treatment for a first episode of psychosis and their case managers completed separate versions of the PTG inventory. **Results**: Service users' ratings

were higher than case managers' on the PTG inventory subscales measuring appreciation of life, new possibilities, personal strength, and religious/spiritual change. **Discussion**: Case managers may lack an awareness of service users' PTG. Early intervention services seeking to facilitate PTG may require greater training on how to best recognize and facilitate it.

Keywords: Posttraumatic growth, recovery, first episode psychosis, early intervention services for first episode psychosis; case manager, corroborated ratings

Introduction

A first episode of psychosis is often a highly traumatic experience. A recent meta-analysis revealed that approximately 50% of people will experience symptoms of posttraumatic stress disorder following the onset of psychosis (Rodrigues & Anderson, 2017). However, people may also experience positive psychological changes following a first episode of psychosis. The

most common conceptual framework describing such changes is posttraumatic growth (PTG), which refers to the positive psychological changes experienced following the struggle with adversity (Tedeschi & Calhoun, 2004;Tedeschi, Shakespeare-Finch, Taku, & Calhoun, 2018). PTG occurs in at least five domains: developing a greater appreciation for life; closer, more intimate relationships; increased personal strength; new life possibilities; and religious/spiritual growth (Tedeschi & Calhoun, 2004; Tedeschi et al., 2018). PTG has been reported among persons who have had a first episode of psychosis (Dunkley & Bates, 2014; Dunkly, Foulds, & Fitzgerald, 2007; Jordan, Malla, & Iyer, 2019; Pietruch & Jobson, 2012) and multiple episodes of psychosis (Mapplebeck, Joseph, & Sabin-Farrell, 2015; Mazor, Gelkopf, & Roe, 2018, 2019; Slade, Rennick-Egglestone, et al., 2019). Knowing that PTG occurs may provide optimism and hope to persons who have experienced psychosis (Slade, Blackie, & Longden, 2019).

Early intervention services for psychosis have been shown to facilitate PTG among service users (Jordan et al., 2018). Case managers play a key role in such services by providing intensive, developmentally informed, phase-specific support for the needs of service users (e.g., helping service users return to school) (Iyer et al., 2015). Despite their important role, the degree to which case managers are aware of PTG experienced by service users is unknown. An awareness of the potential for growth following a mental illness is an important foundation of recovery-oriented care (Davidson & White, 2007). Similarly, case managers who are unaware of or ambivalent towards service users' PTG may compromise therapeutic alliance or other important outcomes. To address this knowledge gap, this study compared service users' self-reported PTG following a first episode of psychosis and case managers' perceptions of service users' PTG.

Method

Participants and Setting

Participants included service users receiving treatment for a first episode of psychosis at an early intervention service in Quebec, Canada and their case managers. Treatment eligibility criteria included being between the ages of 14 and 35; having an IQ of at least 70; not having experienced a psychosis exclusively due to substance use; not having an organic brain condition; and not having previously taken antipsychotic medications for more than 30 days (Iyer et al., 2015).

Care offered at the service is consistent with the philosophical orientation and treatment recommendations for early intervention for psychosis that have been established throughout the world (Iyer et al., 2015). Case managers hailed from various backgrounds (Nursing = 3, Social Work = 5, Occupational Therapy = 1) and were the primary point of care for service users. They provided a form of assertive case management adapted to support the needs of service users and their families to support service users' recovery, helping the young person reintegrate socially and with community resources and educational and occupational institutions (Malla et al., 2003). Importantly, case managers work in a programmatic fashion, whereby every case manager's role and duties embody the mission and principles of early intervention, irrespective of the case manager's disciplinary background. In this way, all case managers support service users with issues relating to housing, finances, relationships, medication side effects, and more, whether their background is in social work, nursing, psychology, or another field of practice. Emphasis on program objectives and multidisciplinary teamwork thus supersedes the traditional role functions of each respective profession. Case managers followed service users for two years (at least twice per week during the first two months and at least once per month thereafter) and had caseloads of between 20 and 25 service users (Iyer et al., 2015).

To be eligible for the study, service users had to be at least 18 years old; fluent in either French or English; completed at least 6 months of treatment; and clinically stable enough to complete questionnaires. All case managers were eligible.

Measures

Service users and their case managers completed the 21-item PTG inventory (Tedeschi & Calhoun, 1996), which is the most widely used, well-validated measure of PTG (Tedeschi et al., 2018). The PTG inventory measures perceptions of PTG across five domains: appreciation of life (e.g., I have a greater appreciation for the value of my own life); relating to others (e.g., I have a greater sense of closeness with others); stronger self (e.g., I have discovered that I am stronger than I thought I was); new possibilities (e.g., I have established a new path for his or her life); and religious/spiritual growth (e.g., I have a better understanding of spiritual matters). Service users rated PTG following their "mental health problem". Consistent with other studies examining corroborated ratings of PTG (Shakespeare-Finch & Enders, 2008; Weiss, 2002), case managers rated their service user's PTG following service users' "mental health problem". Items on the case manager version were modified accordingly (e.g., my client has a better understanding of spiritual maters). English or French versions of the PTG inventory were completed based on preference.

Service users completed the PTG inventory once during their two-year follow-up. Case managers were unable to complete questionnaires on the same day as service users for logistical reasons (e.g., limited time, high demands, etc.). Instead, three meetings were scheduled over the data collection period (May 2015 – November 2017) whereby assessments were completed. Case managers completed one assessment per service user over this period. They did not receive

specific training on PTG during the study period, and thus may not have had extensive knowledge about PTG.

The McGill University's Institutional Ethics Board approved this study.

Results

One hundred and five service users completed the PTG inventory as part of a larger study (Removed for blinding). Of these, 57 service users consented to having their case manager rate their PTG. Service users' demographic characteristics and PTG scores did not vary according to whether they consented to this study or not (Table 1). All nine case managers employed by service completed the case manager version of the PTG inventory.

On average, 7.57 months (SD = 8.02; Range = 0 – 25 months; Skewness = .76) had elapsed between assessments of PTG made by service users and their case managers. The timing of scale completion was not related to case managers' ratings of service users' PTG on the overall PTG inventory $r(56) = .05$, P = .69 or on the PTG subscales [appreciation of life $r(56) = .09$, P = .51; relating to others $r(56) = .04$, P = .77; stronger self $r(56) = .05$, P = .70; new possibilities $r(56) = .03$, P = .80; and stronger religious faith $r(54) = .05$, P = .72] (Table 2).

Repeated measures ANOVAs were performed to determine whether case managers rated their service user's PTG differently than service users themselves while controlling for differences in when measures were completed. Overall, service users' self-ratings of PTG were higher than case managers' ratings $F(1,54) = 7.47$, $P < .008$. Service users' self-ratings were also higher than case managers' ratings on the PTG inventory subscales measuring appreciation of life $F(1,54) = 7.67$, $P = .008$; new possibilities $F(1,54) = 7.00$, $P = .011$; personal strength $F(1,54) = 7.85$, $P = .007$; and spiritual change $F(1,52) = 9.76$, $P = .003$. However, no differences in ratings emerged with respect to the "relating to others" domain $F(1,54) = 2.31$, P = .13 (Table 2).

Discussion

This study compared service users' self-reported PTG following a first episode of psychosis and case managers' perceptions of service users' PTG. Service users' ratings of PTG were comparable to many other self-reports of PTG following adversities and traumas other than psychosis (Wu et al., 2019), suggesting such ratings were as similar as perceptions of PTG following other adversities. Service users' self-ratings were higher than case managers' ratings on almost all domains, suggesting that case managers were unaware of service users' PTG.

Discrepancies in ratings were apparent on all domains except for the "relating to others" domain. This finding may reflect service users' willingness to discuss relationships within the context of care. Alternatively, case managers may have been exposed to service users' improved relationships because families are an integral part of care at the service (Iyer et al., 2015).

Ratings were most discrepant with respect to the "religious/spiritual growth" domain. Clinicians may be reluctant to discuss spiritual issues, or to identify spiritual resources that can facilitate recovery (e.g., prayer) with clients (Larsen, 2004; Milner, Crawford, Edgley, Hare-Duke, & Slade, 2019; Park, 2013). In our study, such reluctance may have been influenced by the unwillingness within the province of Quebec to incorporate religious aspects of life (e.g., religious attire) within public spaces (Venkataraman, Jordan, Pope, & Iyer, 2018); and by case managers' potential fear of reinforcing delusional thoughts (Larsen, 2004).

Other studies have reported strong corroborations between patients' and their family members' or romantic partners' reports of patient's PTG following adversities other than psychosis (Mosher et al., 2017; Shakespeare-Finch & Enders, 2008; Weiss, 2002). Studies comparing clinicians' and service users' ratings on other outcomes such as quality of life (Jung, Hwang, Yi, Kim, & Kim, 2010) and motivation for engaging in treatment (Jochems et al., 2016),

have also shown discordance between ratings. It may be unreasonable to expect case managers to be aware of outcomes unrelated to clinical recovery (i.e., symptom remission and resuming functional roles). However, broader outcomes related to PTG are important components of personal recovery (e.g., identity, relationships). Knowing more about these broader areas may help case managers more fully support service users in the aftermath of psychosis.

This study has several strengths and limitations. We recruited a well-characterized sample of service users from a well-defined catchment area. However, we relied on a small convenience sample; and were unable to assess service users' and case managers' perceptions of service users' PTG at the same time. In addition, the data is was collected cross-sectionally and does not provide information about how service users' PTG, and case managers' perceptions of service users' PTG changed, over time. Assessing multiple service users during the same meeting may have also introduced bias in case managers' ratings. Finally, data on psychiatrists' perceptions of service users PTG were not collected.

Despite their important role, case managers may be unaware of PTG among service users. Future research should assess clinicians' perceptions of PTG in a larger sample; assess subjective perceptions using qualitative methods; and determine if case managers' perceptions of service users' PTG predicts service users' PTG, as well as outcomes like therapeutic alliance, service engagement, and recovery. In addition, studies should determine predictors of case manager perceptions of service users' PTG (such as disciplinary background, service users' sense of recovery, etc.). Additional research should examine perceptions that a broader range of treatment providers have of service users' PTG (including therapists) across different mental health problems.

To foster growth, clinicians may benefit from specific training to recognize, appreciate and facilitate PTG. A recent systematic review suggests that to facilitate PTG, mental health services and clinicians should adopt the principles of therapeutic optimism and offer a range of interventions and medications to help support service users' recovery (Jordan et al., 2018). In addition, clinicians can offer psychotherapy from a broad range of orientations (e.g., cognitive behavioural therapy, mindfulness) (Roepke, 2015) as well as PTG-based interventions (Calhoun & Tedeschi, 1999).

Acknowledgements: Removed for blinding.

Conflict of interest: Removed for blinding

Biographical Note: Removed for blinding.

Data Sharing: Research data are not shared

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Tables

Table 1: Comparison of service users who participated with those who did not consent to have their case managers rate their PTG

	Group	
	Service Users who Participated (n = 57) (M/SD; *f*/%)	Service Users who did not Participate (n = 48) (M/SD; *f*/%)
Demographic Characteristics		
Gender (Female)	25 (45.5%)	18 (37.5%)
Age	25.49 (4.52)	25.15 (5.26)
High School Completion (yes)	49 (87.5%)	43 (91.5%)
Visible Minority (yes)	28 (49.1%)	24 (50%)
In a relationship (yes)	13 (23.2%)	13 (27.7%)
Employed or in school (yes)	38 (66.7%)	30 (62.5%)
Schizophrenia-spectrum diagnosis (yes)	30 (65.2%)	24 (60%)
Posttraumatic Growth Domain		
Relating to others	19.25 (10.01)	19.51 (10.58)
Personal strength	11.96 (5.06)	11.51 (5.61)
Improved spirituality	4.78 (3.73)	4.96 (3.68)
Appreciation of life	9.69 (3.77)	9.23 (4.10)
New possibilities	14.64 (6.57)	14.40 (7.12)
Total	60.16 (24.28)	59.62 (28.37)

Note. Categorical data were compared using Chi-Square tests while continuous data were compared using one-way analyses of variance.

Table 2: Results of Repeated-Measures ANOVAs comparing Service Users' Self-Reported Posttraumatic and Case Managers' Perceptions of Service users' Posttraumatic Growth

	Group (n = 57)	
Posttraumatic growth domain	Service users (M/SD)	Case managers (M/SD)
Relating to others	19.25 (10.01)	15.45 (6.66)
Personal strength	11.96 (5.06)	8.37 (4.31)*
Improved spirituality	4.83 (3.73)	2.05 (2.44)*
Appreciation of life	9.70 (3.77)	6.86 (3.49)*
New possibilities	14.46 (6.70)	9.66 (5.87)*
Total	60.16 (24.29)	42.32 (19.96)*

Note. * = $P \leq .05$