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New Directions in Treatment Research for Personality Disorders: Effectiveness of Different Levels of Care

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Introduction

Personality disorder (PD) treatment research continues to advance at a considerable pace [1–3]. Once engendering a pervasive therapeutic nihilism, PDs are starting to be viewed as treatable, with a much better prognosis than previously thought. Findings from prospective longitudinal studies suggest that the traditional view of PDs espoused by the DSM as 'enduring' conditions that remain 'stable' in the long term – a view which fosters pessimism about the potential for positive therapeutic outcomes – has not been borne out by empirical evidence [4]. This is especially true when we consider outcome data from randomised controlled trials of psychotherapy. There have been several systematic reviews [5, 6] and meta-analyses [7–9], including a Cochrane review [10], supporting the use of psychotherapy for PDs. This contrasts with the evidence for pharmacological interventions, which has been less encouraging [11–13]. The emergence of such an evidence base has been crucial in advancing the place of psychotherapy as a treatment of choice for PDs and suggests that increased clinical optimism is warranted.

Despite the many promising developments in the PD treatment research literature, several important issues remain inadequately addressed. Among these is the issue concerning the optimal level of care for the psychotherapeutic treatment of PDs. According to Gunderson et al. [14], the level of care is a multi-dimensional construct that considers containment, intensity, structure, costs per day and duration. Generally speaking, levels of care can be organised hierarchically on the basis of these dimensions (except duration) into inpatient hospitalisation, partial hospitalisation/day treatment and outpatient treatment. The level of care has major ramifications in terms of resource allocation, which ultimately affects service delivery decisions. An additional, perhaps less well appreciated implication is the potential for stigma associated with different levels of care, which can influence patients' willingness to engage with health services. While the relevance of the level of care to the treatment of PDs has received considerable discussion in the literature, research on the matter has been lacking. This is likely owed to formidable methodological challenges, not the least of which is the unlikelihood of being able to randomly assign patients to different levels of care because of practical and ethical constraints.

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Project SCEPTRE

Study Characteristics

Recently, in a landmark study, researcher Anna Bartak and her colleagues in the Netherlands took on the challenges of studying the effectiveness of different levels of care in the treatment of PDs, as part of the large project SCEPTRE (Study on Cost Effectiveness of Personality Disorder Treatment). (More information on project SCEPTRE can be accessed at http://www.vispd.nl/index.htm.) The study produced 3 reports (1 for each PD cluster), which appeared in different issues of *Psychotherapy and Psychosomatics*. The 3-year study was conducted in 6 mental health care centres in the Netherlands and involved several hundred patients with DSM-IV-TR axis II diagnoses. At each participating centre, patients were assigned to different modalities of psychotherapeutic treatment representing 3 levels of care: outpatient treatment, day treatment and inpatient treatment. The treatment assignment was not randomised, but instead based on the expert opinion of clinicians at the participating sites, whose clinical experience was supplemented with patient data from standardised assessments [15]. An extensive battery of measures was administered to the patients before treatment assignment in order to assess a wide variety of baseline characteristics. Longitudinal assessment of outcome (up to 36 months after baseline) was also a feature of the study, thus permitting the use of multilevel modelling in statistical analyses of the collected data. Using intention-to-treat analysis, Bartak et al. compared the effectiveness of the different levels of care for the various outcome indices (psychiatric symptoms, social role functioning, interpersonal functioning and quality of life). Because of the non-randomised design of the study, the propensity score method [16] was used to control for baseline differences among the participants in the different treatments.

Strengths of the Study

There are several notable qualities of the study by Bartak et al. that are worth pointing out. Foremost among them is the very large sample of PD patients, which provided the study with considerable statistical power. Additionally, given that the study was conducted in regular clinical settings and not under experimental conditions, it has high external validity and clinical utility. A further strength of the study was the rigorous statistical control of potentially confounding variables using multiple propensity score methodology. Also notable is the excellent response rate that the researchers achieved for their long-term assessments. Finally, while not necessarily a methodological strength, Bartak et al. should be commended for their ability to coordinate such a large study involving multiple clinical sites.

Summary of Findings

Cluster C Disorders. The first report to come from this study concerned patients with cluster C (obsessive-compulsive, avoidant and dependent) PDs [17]. In it, the authors reported on the effectiveness of 5 modalities of psychotherapeutic treatment embedded within 3 levels of care: long-term (>6 months) outpatient, short-term (up to 6 months) day treatment, long-term day treatment, short-term inpatient and long-term inpatient treatment. While they did collect data from patients who received short-term outpatient treatment, these data were excluded from analysis due to the fact that only a minority (3.9%) of patients received such care. Furthermore, these patients were significantly different from those in the other treatments on a variety of baseline characteristics, indicating a dissimilar and less sick population that was incomparable with the rest of the study sample. Following correction for all relevant baseline differences among the treatment groups, Bartak et al. found that improvement between baseline and 12 months after baseline was significant for patients in all groups on all outcome measures. However, the patients in short-term inpatient treatment evidenced the most improvement. The within-group effect sizes for this treatment modality were consistently the largest across outcome domains. With regard to between-group effect sizes, the patients in the short-term inpatient group demonstrated significantly better outcomes than the patients in the short-term day treatment (psychiatric symptoms, social role functioning, interpersonal functioning, quality of life), long-term day treatment (psychiatric symptoms, social role functioning) and long-term inpatient (psychiatric symptoms, quality of life) groups. The authors did not report findings pertaining to specific cluster C PDs. The study findings suggest that a level of care characterised by high degrees of containment, intensity and structure for a relatively short duration may provide the greatest potential for improvement for patients with cluster C PD.

Cluster B Disorders. The second report from the study by Bartak et al. concerned patients with cluster B (histrionic, narcissistic, borderline, antisocial) PDs [18]. The authors modified their presentation of results for this article by reporting on the effectiveness of the 3 levels of care (outpatient, day treatment, inpatient) without considering short-term and long-term variants of each, as they

had done in their first report. This change was necessary because of sample size limitations to considering the treatment groups defined by duration (i.e. it was necessary to collapse across duration sub-groups within each level of care in order to have sufficient power for statistical analyses). Another change for this report was that the authors now examined improvement from baseline to 18 months after baseline (rather than 12 months after baseline as in their first report). Bartak et al. argued that because cluster B PD patients tend to present with more serious impairment compared to cluster C PD patients, they expected change to occur somewhat later for the cluster B patients, thus requiring a longer follow-up time frame. The authors found that patients improved significantly in all 3 levels of care. After multiple propensity score correction to control for baseline differences among the different levels, it was observed that patients in inpatient treatment showed the largest improvements, particularly for psychiatric symptoms. It should be noted that this significant advantage of inpatient treatment only appeared in relation to outpatient treatment for the psychiatric symptoms outcome measure. All other comparisons between levels of care for the other outcome variables showed smaller differences. It appeared that baseline differences among the levels of care played a considerable role in determining the effectiveness of the different treatments. While the authors did not report on treatment effectiveness for specific cluster B PDs, the findings are likely most relevant to borderline PD, as this diagnosis was given to the majority (77.3%) of patient participants. In summary, the findings of this second report suggest that all 3 levels of care (outpatient, day treatment, inpatient) were effective for patients with cluster B (primarily borderline) PD, yet even after accounting for the strong influence of baseline patient characteristics, there seemed to be a slight advantage for inpatient treatment.

Cluster A Disorders. In the final and most recent report emanating from their study, Bartak et al. [19] present findings concerning patients with cluster A (schizoid, paranoid, schizotypal) PD. As with their second report, the authors present 18-month post-baseline findings relating to the 3 levels of care (outpatient, day treatment, inpatient) without considering variations of duration within each level. The study found that patients assigned to day treatment and inpatient treatment improved significantly on all outcome measures, but those assigned to outpatient treatment improved significantly on only 1 of the 4 measures (social role functioning). Following correction for baseline differences, it was found that the improvements in psychiatric symptoms for those in the day treatment and inpatient treatment conditions were significantly greater than for those in the outpatient condition. Day treatment patients also experienced significantly greater improvements in quality of life compared to those in the outpatient condition. No other significant differences among levels of care evolved from the study. Given that the majority (86%) of the patients were diagnosed as having paranoid PD, the findings seem most relevant to this patient group. A word of caution is in order concerning the findings contained within this latest report. The authors reported that the patients in the 3 levels of care differed substantially on a number of baseline variables, which complicated the adjustment of the outcome results with the propensity score method (i.e. the 3 groups were not readily comparable, even after applying the propensity score correction). Thus, while the outcome findings seem to suggest a superiority of day treatment and inpatient treatment for primarily paranoid PD patients compared to outpatient treatment (at least in terms of psychiatric symptoms), the more cautious conclusion is that cluster A personality pathology does not appear to be a contra-indication for psychotherapeutic treatment.

Study Limitations

The findings derived from this series of reports should be considered in the context of some important limitations. Most obvious is the absence of randomisation of patients to the different levels of care. However, use of the multiple propensity score correction is a significant advance for permitting non-randomised studies to be conducted with confidence. Another limitation is that the investigators did not conduct subgroup analyses (e.g., based on specific diagnostic subgroups within each PD cluster). This limits us to making only broad conclusions from the data. A large proportion of patients who participated in project SCEPTRE met criteria for PD – not otherwise specified and were not included in the analyses of the 3 reports. For these patients, it is unclear as to which level of care may be most appropriate. Finally, the investigators did not include outcome assessments related to personality pathology. Thus, we are left to wonder what sort of impact the different levels of care had on the core pathologies that characterise PD patients.

Conclusions from the Study

Notwithstanding these limitations, it is tempting to conclude from the 3 reports that inpatient psychotherapeutic treatment is the level of care in which patients with PDs experience the greatest improvement. However, such

a conclusion may be premature. In the case of cluster C PD patients, inpatient treatment of a shorter duration (≤6 months) was, indeed, the superior treatment. Yet, for cluster B and A PD patients, inpatient treatment was marginally better than the other levels of care once baseline differences among patients in the different levels of care were controlled. Nevertheless, the findings do suggest that increasing levels of containment, intensity and structure provided by inpatient treatment and day treatment are capable of facilitating improvement for cluster B and C PD patients. For cluster A PD patients, higher levels of care may be actually preferable, as it was shown that outpatient treatment (representing the lowest level of care) was largely ineffective. Conceivably, a more cautious general conclusion is that the higher level of containment, structure, intensity and therapeutic pressure that characterise day treatment and inpatient treatment may be useful for a broad spectrum of PD patients.

Clinical Implications

Should these findings affect how we approach the treatment of PD? Perhaps we are not yet at the point where we can definitely say 'Yes'. At the very least, however, the findings suggest that specialised inpatient psychotherapeutic treatment deserves to be considered as a valuable treatment option for patients with PD pathology. Unfortunately, in many countries, inpatient treatment has been marginalised as a treatment option, having been relegated as a short-term crisis intervention. Whether this trend can be halted and reversed may depend on the outcomes of further investigations of different levels of care for PD patients.

Implications for Future Research

Perhaps, then, the major implication of the findings of Bartak et al. is that they will stimulate further inquiry into a topic that has been largely ignored by researchers – the role of different levels of care (and, in particular, inpatient treatment) for patients with PDs. Several questions that will inform 'next steps' for research on this topic are obvious (some of which are likely to be addressed by other sub-studies and future research reports of project SCEPTRE, as 5-year follow-up data are presently being collected). For example, what is the optimal duration of treatment within each level of care? The first report of Bartak et al. considered this question and found that the highest level of care (inpatient care) for a shorter duration (up to 6 months) was most beneficial for cluster C patients. Unfortunately, this question was not addressed with cluster B and A patients. Future work will need to utilise more precise analyses of time, rather than arbitrarily defining time as short-term or long-term. Another important question is: do certain patients respond particularly well or poorly to different levels of care? This addresses the issue of matching patients and treatments, and potentially has significant implications for treatment selection decisions. As pointed out earlier, levels of care are organised on the basis of several factors, including containment, intensity and structure. It will be an important challenge for future research to determine the optimal combinations of these features for the treatment of PDs. Without a doubt, the question of whether the potential benefits in terms of effectiveness of higher levels of care are worth the cost differences must be addressed in future studies. Project SCEPTRE researchers have already begun to address such issues. For example, they recently presented data to show that short-term inpatient therapy is a cost-effective treatment for cluster C PD patients [20]. State-of-the-art cost-effectiveness analyses must consider not only the costs of delivering the treatments themselves, but also costs incurred outside the treatment setting, such as non-psychiatric medical costs, productivity costs and other indirect costs. The cost-effectiveness of treatment options can become an important argumentation in decision-making and in allocating health care budgets. Concerning treatment effects, what aspects of patients' lives do different levels of care impact? Bartak et al. reported on a limited number of outcome variables, finding that psychiatric symptoms were the most malleable. But what about other outcomes? Is the core personality pathology of PD patients affected by different levels of care? Are patients' abilities to return to productive work differentially affected? Broader and more meaningful outcomes must be considered in future studies. Even if future studies find differential effects of different levels of care, to what do we attribute these effects? How do the treatments actually work? What are the active ingredients that facilitate improvement? Investigations will need to attend to such questions in order to help us maximize our therapeutic efforts. Attending to these and many other questions will help advance our understanding of effective delivery of psychotherapeutic services within different levels of care.

Conclusion

The study of treatments for PDs has come a long way, but an even longer journey remains ahead, with many questions and challenges to tackle. Bartak et al. provide

one example of how some of these questions and challenges can be addressed in an innovative and comprehensive manner. Their research helps put us in a better position to clarify appropriate levels of care for patients with significant personality pathology. Such research has significant real-world relevance [21] for health service delivery decisions and for future investigation into effective intervention for a vulnerable patient population.

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