

Person-Centered Planning: Analysis of Research and Effectiveness

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Abstract

Person-centered planning is a well known and widely used approach to individual program planning in the field of intellectual and developmental disabilities. Its purpose is to develop collaborative supports focused on community presence, community participation, positive relationships, respect, and competence. Because there is little research on its effectiveness, our purpose here was to (a) review the current status of effectiveness research; (b) describe its effectiveness in terms of outcomes or results; and (c) discuss the effectiveness of person-centered planning in relation to evidence-based practices. Analyzed studies suggest that, overall, this planning has a positive, but moderate, impact on personal outcomes for this population. The body of evidence provided in this review is weak with regard to criteria for evidence-based research.

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Person-centered planning is a well-known and often used approach to individual program planning in the field of intellectual and developmental disabilities (Felce, 2004; Green, Middleton, & Reid, 2000; Holburn, 2002 a, 2002b; Mansell & Beadle-Brown, 2004; J. O'Brien, 2004). The general term emerged in 1985 and its components reflect the broader ideological framework of normalization and inclusion. (Holburn, Jacobson, Vietze, Schwartz, & Sersen, 2000; C. O'Brien & O'Brien, 2002).

Person-centered planning covers a wide range of procedures and guidelines focused on the creation of fundamental changes in the lives of people with intellectual and developmental disabilities (Cloutier, Malloy, Hagner, & Cotton, 2006; Combes, Hardy, & Buchan, 2004; Holburn, 2002 a, 2002b). The purpose of person-centered planning is to develop collaborative, goal-oriented, and individualized programs that are focused on community presence, community participation, positive relationships, respect, and competence (Cloutier et al., 2006; Keyes & Owens-Johnson, 2003; J. O'Brien, 1987; Rea, Martin, & Wright, 2002). Some of the most common forms of person-centered planning are the McGill Action Planning System (Vandercook, York, & Forest, 1989), Essential Lifestyle Planning (Smull & Harrison, 1992), Life-Lifestyle Planning

(J. O'Brien & Lovett, 1992), Personal Futures Planning (J. O'Brien & Lovett, 1992), Planning Alternative Tomorrows With Hope (Pearpoint, O'Brien, & Forest, 1993), and the Picture Method (Holburn, Gordon, & Vietze, 2007).

Although person-centered planning processes are increasingly used in the intellectual and developmental disabilities field (Amado & McBride, 2002; Keyes & Owens-Johnson, 2003; King, Baldwin, Currie, & Evans, 2005), to our knowledge there has been no systematic review of the literature regarding the effectiveness of person-centered planning. In this study, our purpose was to conduct such a review. We had three objectives: (a) to review the current status of research into the effectiveness of person-centered planning, (b) to describe the effectiveness of person-centered planning in terms of outcomes or results, and (c) to discuss the effectiveness of person-centered planning in relation to evidence-based practices. Our rationale was that to be considered as evidence-based, person-centered planning interventions need to have clear empirical support (Veerman & van Yperen, 2007; Wade, 1999) that requires both reliable implementation of the process and valid assessment of the outcomes (Holburn, 2002 a, 2002b; King et al., 2005; Rea et al., 2002; Wagner, 2002).

Method

Identification of Potential Articles/Studies

We restricted our literature review to all articles published on the *Web of Science* between 1985 and January 2009. Initially, we paired the terms *person-centered planning* and *person-centred planning* with the term *effectiveness*. This search query identified only 15 manuscripts. In order to be more comprehensive, we extended our search using one string only: *person-centered planning* and *person-centred planning*. These searches were not limited by diagnostic group. This extended search identified 108 potential articles.

Selection of Articles for Analysis

Two of the authors (the first and third), who are active researchers in the field of intellectual and developmental disabilities, independently reviewed titles and abstracts of all potentially relevant studies. They used two inclusion criteria: (a) that person-centered planning was applied to people with intellectual and developmental disabilities and (b) that the researchers reported empirical findings on effectiveness.

Based on an initial analysis of the abstracts or full texts of the 108 articles, we excluded 14 articles as being abstracts or book reviews. Thirty five were excluded because the authors did not focus on people with intellectual and developmental disabilities. We excluded an additional 35 studies that were exclusively descriptive in nature. Of the remaining 24 potential articles, researchers in 9 examined only elements of the person-centered planning process (not effectiveness) and, therefore, were not included. Only 15 studies met the two selection criteria referenced above. An overview summary of these 15 studies is presented in Table 1. This summary includes the study's independent and dependent variables, sample size, design, data-collection strategy, measurement instrument, and the main effects reported. As also shown in Table 1, 11 were quantitative and 4 were qualitative studies.

Results

Definition of Person-Centered Planning

There is no universal definition of person-centered planning. In 3 of the studies, the researchers described person-centered planning in general terms of a person-centered planning process

(Green et al., 2000; Reid, Everson, & Green, 1999; Robertson et al., 2006). The focus in 5 studies was on functional assessment and positive behavior support in combination with person-centered planning (Artesani & Mallar, 1998; Buschbacher, 2004; Buschbacher & Fox, 2003; Gardner, Bird, Maguire, Carreiro, & Abenaim, 2003; Kennedy et al., 2001). In 4 studies investigators specified the described planning processes as a personal career plan (Menchetti & Garcia, 2003), innovative and culturally responsive person-centered practice (Hasnain & Sotnik, 2003), and later-life planning (Heller, Factor, Sterns, & Sutton, 1996; Heller, Miller, Hsieh, & Sterns, 2000). In 3 studies the authors defined the person-centered planning process as Whole Life Planning (Hagner, Helm, & Butterworth, 1996) and Personal Futures Planning (Holburn, Jacobson, Schwartz, Flory, & Vietze, 2004; Miner & Bates, 1997). Holburn et al. conducted the only study in which key factors associated with the implemented person-centered planning process were also assessed.

Assessment of Methodological Quality of Quantitative Studies

We used 16 criteria to examine the methodological quality of the 11 quantitative outcome studies identified. These criteria were based on the widely used checklist (see, for example, Alla, Sullivan, Hale, & McCrory, 2009; Prins, Blanker, Bohnen, Thomas, & Bosch, 2002; Wells & Littell, 2009) developed by Downs and Black (1998) to research the methodological quality and evidence-based nature of quantitative nonrandomized studies. This information contributed to the evidence-based practices of reporting relevant information and demonstrating external and internal validity.

The 16 criteria are listed in Table 2. We developed a rating sheet to evaluate each article on these 16 criteria. Specifically, we chose the criteria to describe evidence presented related to (a) reporting (the information provided is sufficient to allow readers to make an unbiased assessment of the findings of the study: Items 1–8), (b) external validity (study results are applicable to other populations: Items 9–11), and (c) internal validity (the measurement is accurate apart from random error: Items 12–16). In the present study, we gave each criterion a yes (1), or no/unable to determine (0). Two judges/authors did the scoring independently. In case of disagreement (which occurred on

Table 1 Overview of Person-Centered Planning (PCP) Studies

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Robertson et al. (2006)	Social network; contact with family; contact with friends; community involvement; scheduled day activities; choice; community-based service receipt; hospital-based service receipt; physical activity; current medication receipt; health problems; strengths and difficulties; risk	PCP (not specified)	93 people with intellectual disability	Quantitative research; pre-post study; information on the life experiences of participants collected over a period of 2 years for a cohort of 93 adults with intellectual disability	Questionnaires	Health Survey for England; Index of Community Involvement; Social Network Maps; Client Service Receipt Inventory; Strengths and Difficulties Questionnaire; Risks Scale; Adaptive Behavior Scale; PASS-ADD checklist; Learning Disabilities Casemix Scale; English Indices Deprivation	Modest positive benefit on the life experiences of people; benefits in the areas of social networks, community involvement, scheduled day services, contact with friends, contact with family and choice; No impact on inclusive social networks, employment, physical activity, medication Change in a negative direction for risks, physical health, and emotional and behavioral needs Costs: \$1,202 per person

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Buschbacher (2004)	Challenging behavior; engagement in daily routine; parent-child interactions	Functional assessment and positive behavior support in combination with personal futures planning	One 7-year-old boy dually diagnosed with autistic-like characteristics and Landau-Kleffner syndrome	Quantitative research; single case study; multiple baseline design	Interviews/ direct observation		Reductions in challenging behavior; increases in child's engagement; increases in parent-child interactions; increased number of days the child slept during the night
Holburn et al. (2004)	Changes in PCP processes and quality of life; movement to the community	Personal futures planning	20 people with intellectual disability and problem behavior and a matched control group	Quantitative research; control group; longitudinal comparative evaluation-matched contrast group	Questionnaires	Developmental Disabilities Profile 2; Personal Futures Planning Indicators; Indicators of Principles Scale; person-centred planning; quality of life indicators	Rate of improvement in both PCP process and outcomes (QOL) for the intervention group significantly greater than that of the comparison group; 18/19 participants moved to community living arrangements cf. 5 to 18 in the contrast group

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Buschbacher & Fox (2003)	Positive behavior support combined with PCP	One boy diagnosed with autism spectrum disorder	Quantitative research; single case study	Not specified			Six months later, use of visual schedules and choice boards, increasingly verbalized requests and protests, engaged in simple dramatic play with others, and participated in an increased number of community activities effectively; more consistent responding to education and therapeutic interventions

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Gardner et al. (2003)	Lifestyle changes	Applied behavior analysis and PCP	Two adolescents who received the intensive, longitudinal, multicomponent intervention	Qualitative research; single case study; long-term, natural-environment case study method (3-year case study design)	Recorded data collection		Targeted challenging behaviors reduced to zero; participants' domains of activity increased and self-management improved even as supports were systematically withdrawn
Hasnain & Sotnik (2003)	Client outcomes.	Innovative and culturally responsive PCP	People (N=328) with disabilities who represented a variety of different backgrounds, experiences, and situations	Qualitative research, program evaluation	Planning meetings		Several positive outcomes: awareness of new employment options and opportunities, experience of positive gains in employment options; difficulties in engaging individuals from ethnically, linguistically, and culturally diverse backgrounds

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Menchetti & Garcia (2003)	Career choice; employment outcomes	Personal career plan	83 supported employees with intellectual disability	Qualitative research; single category design (document analyses and focus groups)	Document analyses; focus groups		High and moderate levels of preference attained by 83% of the employees studied; wages and length of employment not significantly different by level of match
Kennedy et al. (2001)	Problem behavior and general education participation	PCP, functional assessment, and positive behavior support	Three students: 1 receiving special education services and 2 at risk for more restrictive placements	1 Quantitative research; single case study; combined concurrent and nonconcurrent multiple baseline across-students design	Teacher records and student schedules; observations		Two of 3 students increased or maintained high levels of general education participation; decreased in problem behavior; for 1 student, poor implementation of support plan associated with increases in problem behavior and decreases in general education participation

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Green et al. (2000)	Identification of accurate preferences	PCP	Three adults with multiple physical disabilities and profound mental retardation	Quantitative research; single case study	Single-item approach and avoidance assessment observation		PCP resulted in identification of accurate preferences and also in a number of inaccurate reports of preferences
Heller et al. (2000)	Knowledge of choice-making and ageing issues, daily choice-making and life satisfaction	Later-life planning	60 adults with mental retardation	Quantitative research; control group	Questionnaires	Later-Life Planning Significant Curriculum Test; Life Satisfaction Scale; Daily Choice Inventory; Inventory for Client and Agency Planning	interaction effect by group and time for amount of choice-making, but no effect on life satisfaction; adults with mental retardation gain skills and knowledge as they aged; highlighted key roles of staff and families in providing support to meet preferred life goals

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Reid et al. (1999)	Identification of accurate preferences (leisure-related preferences)	PCP use of mapping	Four adults with multiple physical disabilities and profound mental retardation	Quantitative research; single case study	Single-item approach and avoidance assessment observation		PCP resulted in identification of accurate preferences as well as in a number of inaccurate reports of preferences; PCP should be accompanied by systematic preference assessments
Artesani & Mallar (1998)	Challenging behavior	PCP, functional analysis, and positive behavior support	One student with challenging behavior	Quantitative research; single case study	Observation		Increased time engaged in academic tasks, reduced need for one-to-one assistance, improved quality of academic performance, increased involvement in group activities, increased use of alternative methods for avoiding tasks and satisfaction; benefits of team approach, integral involvement of the family and student, and development of a broader vision

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Miner & Bates (1997)	Parent/guardian participation in IEP/transition planning meetings and discussion of postschool issues	Personal futures planning model	22 students and their families	Quantitative research; randomized control group design	Observation Questionnaire		Significant difference in percentage of intervals in which the parents spoke in the meetings between the treatment and control group (higher experimental group); no significant difference in favor of treatment group in the percentage of intervals in which postschool issues were discussed between groups; similar postmeeting satisfaction between groups; stronger perceptions of change by families who participated in PCP in the follow-up

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Hagner et al. (1996)		Whole Life Planning	Six participants with moderate, mild, or severe mental retardation	Qualitative research	Participant observation, in-depth interviewing and document analyses		Constraints on equal participation (differences by both role and age, friends comprised the smallest group of attendees, negative comments could not be avoided, only thin line between giving assistance and overpowering individual's own views; facilitator role difficulties; unplanned nature of outcomes (closer social relationships)

Table 1 Continued

Author	Dependent variable	Independent variable	Sample size	Design	Data collection strategy	Measurement instrument	Main effects reported
Heller et al. (1996)	Knowledge of choice-making and ageing issues, life satisfaction, social support, participation in recreation-leisure activities and daily choice-making	Person-centered later life planning training program	70 adults with intellectual disabilities (42 intervention, 38 comparison group)	Quantitative research; control group	Questionnaires/ Observations	Later Life Planning Inventory; Inventory for Client and Agency Planning; Later Life Curriculum Test; Service Planning Observational Tool	Improved knowledge on leisure-recreation information, retirement, work and volunteering, and social support; no improvements in knowledge of choice-making and action plans, health and wellness, and living arrangements; increased use of leisure-recreation activities for the trainees living at home; decrease in ratings of life satisfaction; and greater involvement of families, more encouragement of the individual's participation, and more incorporation of individual's desires in written goals

Table 2 Results of Quantitative Analysis

Study	Reporting										External validity						Internal validity					
	1	2	3	4	5	6	7	8	Sub-total	9	10	11	Sub-total	12	13	14	15	16	Sub-total	Total		
Robertson et al. (2006)	1	1	1	0	1	1	0	0	5	0	0	1	1	0	0	0	1	1	2	8		
Buschbacher (2004)	1	1	1	1	1	1	0	0	6	0	0	1	1	0	0	0	1	1	2	9		
Holburn et al. (2004)	1	1	1	1	1	0	0	0	5	0	0	1	1	1	0	0	1	1	3	9		
Gardner et al. (2003)	1	1	1	1	1	0	0	0	5	0	0	1	1	0	0	0	1	1	2	8		
Kennedy et al. (2001)	1	1	1	1	1	1	0	0	6	0	0	1	1	0	0	0	1	1	2	9		
Green et al. (2000)	1	1	1	1	1	1	0	0	6	0	0	1	1	0	0	0	1	1	2	9		
Heller et al. (2000)	1	1	1	1	1	1	0	0	6	0	0	1	1	1	0	0	1	1	3	10		
Reid et al. (1999)	1	1	1	1	1	1	0	0	6	0	0	1	1	0	0	0	1	1	2	9		
Artesani & Mallar (1998)	1	1	1	1	1	0	0	0	5	0	0	1	1	0	0	0	1	1	2	8		
Miner & Bates (1997)	1	1	1	1	1	1	0	0	6	0	0	1	1	1	0	0	1	1	3	10		
Heller et al. (1996)	1	1	1	1	1	1	0	0	6	0	0	1	1	1	0	0	1	1	3	10		

10 of the 176 possible scores), a consensus score was agreed upon after considerable discussion. The results of this analysis are shown in Table 2.

Assessment of Methodological Quality of Qualitative Studies

The same two authors assessed the methodological quality of the qualitative studies by means of the widely used checklist and scoring system developed by Cesario, Morin, and Santa-Donato (2002) (see, for example, Genuis & Genuis, 2006; McCartney & Morin, 2005). Cesario et al. developed the scoring system to evaluate qualitative evidence (i.e., the assertion of the strength of qualitative research and the ability to evaluate the level of evidence). The scale contains criteria for rating the following five categories: descriptive vividness, methodological congruence, analytical preciseness, theoretical connectedness, and heuristic relevance. The authors scored every study with each of those five categories according to a 3-point rating scale: 3 = more than 75% of the criteria met, 2 = between 50% and 74% of the criteria met, and 1 = between 25% and 49% of the criteria met. Scoring was done independently by the same authors, and differences (on 5 of the 40 possible ratings) were discussed and settled, resulting in a consensus score. The results of this analysis are presented in Table 3. One study met the criterion of *fair*, indicating that the total score was 15 to 22.4 (i.e., 50 to 74% of the total criteria met); Three of the 4 studies met the criterion of *good*, indicating that the total score was 22.5 to 30 (i.e., 75% to 100% of the total criteria met (Cesario et al., 2002).

Evaluation of Outcome Effectiveness

The rating scale used to evaluate outcome effectiveness was developed by Prout and Nowak-Drabik (2003). For this rating scale, which enables the evaluation of various variables for outcome effectiveness, a 5-point scale is used: 1: no significant change/no effectiveness (i.e., researchers reported no impacts on the studied variables), 2: minimal change/minimal effectiveness (i.e., authors report a positive impact on some outcome variables, but mostly side effects in the negative direction), 3: moderate change/moderate effectiveness (i.e., positive impacts were reported on most of the studied outcome variables, but also some side effects in the negative direction), 4: significant change/signifi-

Table 3 Results of the Qualitative Analysis

Study	Methodological congruence					Heuristic relevance			Total		
	Descriptive vividness	Rigor in documentation	Procedural Rigor	Ethical rigor	Confirm-ability	Analytical preciseness	Theoretical connectedness	Intuitive recognition		Existing knowledge	Applicability
Buschbacher & Fox (2003)	2	2	2	1	3	2	3	3	3	3	24
Hasnain & Sotnik (2003)	2	2	1	1	2	2	2	3	3	3	21
Menchetti & Garcia (2003)	2	3	2	1	3	2	3	3	3	3	25
Hagner et al. (1996)	3	3	2	1	3	3	3	3	3	3	27

cant effectiveness (i.e., researchers found significant effects on all studied outcome variables), and 5: marked change/marked effectiveness (i.e., significant and marked effectiveness on all outcome variables was reported). The two authors involved in the evaluation process made an independent rating of each article based on this 5-point scale; their ratings were averaged to produce a final score (see Table 4). As shown in the table, significant change/effectiveness was most apparent in the outcome variables related to reduction in challenging behavior references, improvement in social networks, community involvement and issues related to the planning process (involvement of the person or his or her family, improved communication, teamwork, development of a larger vision). The researchers reported less change or effectiveness in knowledge issues and choice-making.

Discussion

The use of person-centered planning was associated with an improvement in social networks, closer contact with family and friends, or greater involvement and engagement in group activities (Artesani & Mallar, 1998; Buschbacher, 2004; Hagner et al., 1996; Holburn et al., 2004; Robertson et al., 2006). Robertson et al. measured person-centered planning against statistically tracked changes in these domains, with a 52% increase in the size of social networks, a 2.4 times greater chance of having active contacts with family members, and a 40% increase in the level of contact with friends. However, they did not find an impact on inclusive social networks.

Person-centered planning also resulted in benefits in the area of community involvement (Holburn et al., 2004; Robertson et al., 2006). In Holburn's study, people who participated in person-centered planning were significantly more likely to leave the developmental center for a community living arrangement designed especially for them than were matched peers who received conventional individualized support interventions.

The effect of person-centered planning on choice-making or expressing preferences was reported (although to a lesser extent than with social networks) in several studies (Green et al., 2000; Hagner et al., 1996; Hasnain & Sotnik, 2003; Heller et al., 1996, 2000; Holburn et al., 2004; Menchetti & Garcia, 2003; Reid et al., 1999;

Table 4 Rating of Outcome Effectiveness

Outcome variable/reference	Score	Mean score
Improvement of social networks		3.6
Hagner et al. (1996)	3	
Artesani & Mallar (1998)	4	
Buschbacher (2004)	4	
Holburn et al. (2004)	4	
Robertson et al. (2006)	3	
Community involvement		3.5
Holburn et al. (2004)	4	
Robertson et al. (2006)	3	
Choice-making		2.9
Hagner et al. (1996)	3	
Heller et al. (1996)	3	
Reid et al. (1999)	2	
Green et al. (2000)	2	
Heller et al. (2000)	3	
Hasnain & Sotnik (2003)	3	
Menchetti & Garcia(2003)	3	
Holburn et al. (2004)	4	
Robertson et al. (2006)	3	
Knowledge Issues		3
Heller et al. (1996)	3	
Heller et al. (2000)	3	
Reduction in challenging behavior		4
Artesani & Mallar (1998)	4	
Kennedy et al. (2001)	4	
Buschbacher & Fox (2003)	4	
Gardner et al. (2003)	4	
Buschbacher (2004)	4	
Process issues ^a		3.4
Heller et al. (1996)	3	
Miner & Bates (1997)	3	
Artesani & Mallar (1998)	4	
Heller et al. (2000)	3	
Holburn et al. (2004)	4	

^aInvolvement of the person and his or her family, teamwork, communication, and development of a larger vision.

Robertson et al., 2006). Green et al. (2000) and Reid et al. (1999) investigated the identification of accurate preferences through person-centered planning; they found that this type of planning resulted

in a number of accurate preferences, but also a number of inaccurate reports. Menchetti and Garcia (2003) concluded that high and moderate levels of preferences on career choice were attained by 83% of the employees they studied.

Heller and colleagues focused on knowledge issues regarding ageing-related themes. They found improved knowledge on leisure information, retirement, work, volunteering and social support, but no improvements in knowledge of choice-making, health, wellness, or living arrangements (Heller et al., 1996). In another study, Heller et al. (2000) found significant effects of later-life planning on the knowledge of choice-making. Adults were able to gain skills and knowledge as they aged.

In 5 studies, researchers evaluated the effect of positive behavior support and person-centered planning on challenging behavior (Artesani & Mallar, 1998; Buschbacher, 2004; Buschbacher & Fox, 2003; Gardner et al., 2003; Kennedy et al., 2001). In each of these studies, the investigators reported a reduction in challenging behavior and increased engagement. Similarly, Buschbacher found increases in parent-child interactions; Kennedy et al. found increased or maintained high levels of general education participation; and Artesani and Mallar reported improved academic performance and increased involvement in group activities.

Several authors described the advantages of the implementation of person-centered planning related to the planning process (Artesani & Mallar, 1998; Heller et al., 1996, 2000; Holburn et al., 2004; Miner & Bates, 1997). Findings mainly emphasized the importance of teamwork and the integral involvement of the person and his or her family. Other reported benefits were improved communication, incorporation of the individual's desires in written goals, development of a larger vision, and a significant effect on parental participation in planning meetings.

In addition to these positive outcomes, less positive outcomes were reported. For example, Robertson et al. (2006) reported no impact of person-centered planning on inclusive social networks, employment, physical activity, or medication and a change in a negative direction for risks, physical health, and emotional and behavioral needs. Menchetti and Garcia (2003) found no effect on wages or length of employment. Hasnain and Sotnik (2003) had difficulty engaging individuals from ethnically, linguistically, and culturally diverse backgrounds. Heller et al. (1996) found a

decrease in life satisfaction. Miner and Bates (1997) reported no significant effects on discussion of postschool issues during planning meetings.

As reflected in the studies analyzed for this article, peer-reviewed studies on the evaluation of outcomes related to the use of person-centered planning are scarce. One reason for this might be the lack of one clear definition of person-centered planning. Also, the components of its process are complex and hard to define (Holburn et al., 2000). No studies were published before 1996. All investigations except one were conducted in the United States. This may indicate that person-centered planning has not been widely adopted yet internationally.

Five general statements can be made regarding the studies involved in the present analysis. First, most of them were quantitative and involved small sample sizes (11 of the 15). Second, although the methodological quality of the studies was assessed as being of good quality, they were weak in terms of external validity (see Table 2). Third, person-centered planning was either not defined or defined loosely. Fourth, there was only one study in which the researchers reported on the assessment of the implemented person-centered planning process (Holburn et al., 2004). In order to demonstrate evidence-based practices, a full description of the person-centered planning process needs to be included. Fifth, there was no horizontal alignment between various aspects of person-centered planning and person-referenced outcomes.

Based on these five general statements, limited generalizations can be drawn on the effects of person-centered planning and its evidence. The limited description of the different components of the process (or combined procedures, for example, applied behavior analysis together with person-centered planning), along with the lack of a control condition makes it difficult to conclude that changes in outcomes can be directly attributed to the person-centered planning intervention that was reported. Perhaps changes occurred independently of the person-centered planning intervention (or because of other variables or interventions related to the person-centered planning intervention), which is an assertion that has already been made by Holburn et al. (2000).

Based on the data summarized in Tables 1 through 4, we have identified five difficulties/weaknesses associated with the studies reported to date in the person-centered planning (descriptive)

literature. First, person-centered planning reaches only a minority of service users (Felce, 2004; Mansell & Beadle-Brown, 2004; Robertson, Emerson et al., 2007; Robertson, Hattan et al., 2007). Robertson, Emerson et al. indicated that there is a strong influence of factors relating to the characteristics of participants in both the access to and efficacy of person-centered planning. Participants with mental health, emotional or behavioral problems, autism, and/or additional health problems are less likely to receive a plan; they are also less likely to benefit if they do receive one (Robertson, Hattan et al., 2007). Findings of other studies illustrate that people with communication difficulties, challenging behavior, or severe intellectual disability are often excluded from the planning process (Mansell & Beadle-Brown, 2004; J. O'Brien, 2004; Reid & Green, 2002). This might be the reason that the researchers examining effectiveness described in the current analysis frequently combined person-centered planning with other methods, such as applied behavioral analysis or systematic preference assessment.

Second, person-centered planning might be a paper exercise that is not related to the real lives of individuals (Mansell & Beadle-Brown, 2004; C. O'Brien & O'Brien, 2000; J. O'Brien, 2004; Reid & Green, 2002; Smull & Lakin, 2002). As a consequence, planning meetings are sometimes not attended by any family member, lawyer, or the consumer (Mansell & Beadle-Brown, 2004); frequently, there are no meetings with the people involved (Combes et al., 2004), and although needs are identified, plans are often not implemented because of a lack of support solutions (Robertson et al., 2007b). For example, Dumas, De La Garza, Seay, and Becker (2002) illustrated that frequently participants actually do not understand their own person-centered planning process. Karlsson (2007) found that the use of discursive strategies during person-centered planning processes did not stimulate self-determination and that parents and professionals performed some kind of paternalistic steering. We came to the same conclusion in the actual analysis in the study by Heller et al. (1996).

Third, the flexible support that is needed to make person-centered planning work is frequently difficult in large traditional service systems with their "all-in one" service packages (Magito-McLaughlin, Spinosa, & Marsalis, 2002; Wagner, 2002). Within these programs, it is very difficult to address fundamental values of supporting people in

making their own decisions (Cambridge & Carnaby, 2005) and to abandon the controlled position that people with disabilities are often involved in (C. O'Brien & O'Brien, 2002).

Fourth, the absence of relationships and social isolation might be counter-productive in a person-centered planning process (Amado & McBride, 2002; Mansell & Beadle-Brown, 2004; Mount, O'Brien, & O'Brien, 2002). As studies of social networks of people with disabilities showed, circles of support—as required in person-centered planning—are frequently hard to establish (Mansell & Beadle-Brown, 2004; C. O'Brien & O'Brien, 2002). This conclusion was also confirmed in our analysis of the Robertson et al. (2006) study.

Fifth, there might be too much optimism in person-centered planning processes, which leads to unrealistic goals, unsuccessful outcomes, or unrealized expectations (Holburn & Cea, 2007).

To evaluate program strategies and evidence-based practices, one must address the two core principles that from our perspective are important: (a) a theory-driven approach that explains how program inputs and processes work is necessary and (b) methodological pluralism, which combines qualitative and quantitative data-gathering strategies (i.e., evidence), needs to be employed (Schallock, Gardner, & Bradley, 2007). In this regard, we agree with Holburn et al. (2000) that two actions have to be taken to ascertain the effects of person-centered planning: operationally defining relevant outcomes connected to such planning and using process measurement to guarantee valid implementation in assessing person-centered planning.

Methodological pluralism (qualitative together with quantitative evidence) suggests that in the future, researchers studying person-centered planning will be challenged to meet requirements of evidence-based practices (Mantzoukas, 2007). Related to this challenge is that defenders of a phenomenological approach and qualitative research frequently criticize the attempt to identify outcomes in predefined measures (C. O'Brien & O'Brien, 2000; Wagner, 2002). They argued that person-centered planning cannot be reduced to a number of dependent variables that can be assessed separately (Felce, 2004; Towell & Sanderson, 2004).

To get a better understanding of the different components of the person-centered planning process and their effects on the outcomes, professionals must look at practice-driven evaluation, which can provide valuable information about the effective-

ness of an intervention (Halle & Lowrey, 2002). In this regard, Veerman and van Yperen (2007) argued for a classification system that includes different levels of evidence-based practices that take real-world interventions as a starting-point. The four parameters of evidence they describe can be adopted to evaluate the effectiveness of person-centered planning: (a) descriptive evidence as a clear specification of the different components of the planning process; (b) theoretical evidence as the quality of life conceptual and measurement framework as a rationale of why and how person-centered planning should lead to changes in people's lives; (c) indicative evidence as systematic evaluations (pre–post studies) that show the desired outcomes did occur; and (d) causal evidence as randomized control studies demonstrating that the person-centered planning intervention itself was responsible for causing the outcomes.

The evaluation of person-centered planning related outcomes could be done using a quality of life conceptual and measurement framework that would include indicators of personal development; self-determination; interpersonal relations; social inclusion; rights; and emotional, physical, and material well-being (Schalock, Verdugo, Bonham, Fantova, & van Loon, 2008). There is a growing number of reliable and valid research tools in this field (Claes, Van Hove, van Loon, Vandeveld, & Schalock, 2010; Schalock et al., 2008). In our view, the use of a logic model—with its input, process, and outcome components—also has many advantages in this regard. The use of logic models allows one to not only identify potential input and throughput predictors but also to build evaluation capacity (Donabedian, 1980; Frechtling, 2007; Isaacs, Clark, Correia, & Flannery, 2009; Schalock & Bonham, 2003).

Using a quality of life logic model, researchers investigating person-centered planning could (a) stress the underlying assumptions, rationale, or theory of a planning process, (b) explain the connections between inputs and outcomes, (c) identify critical factors that affect variation in planning process outcomes, and (d) provide a systems approach to portraying the path towards desired outcomes and evidence-based treatment planning. A similar example is found in Cooksy, Gill, and Kelly (2001), who used a program logic model as an integrative framework for the multi-method evaluation of a middle-school curriculum delivery program.

We are aware that other relevant articles (other than those selected and analyzed as a basis for this article) might exist and that the articles analyzed in this study could produce bias. However, we chose to limit our search to the *Web of Science* to guarantee quality standards on the research projects. Although we outlined and investigated selection criteria and independently made judgments on methodological quality and effectiveness, subjective opinions may exist. Based on this review, one could argue that person-centered planning generates a modicum of outcome-related evidence. If outcomes differ from traditional care models or between different person-centered planning approaches, the approach used has to be validated. How person-centered planning produces its results and for whom are issues for further research.

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Appendix: Evaluation Criteria

Reporting

1. Is the hypothesis/aim/objectives of the study clearly described?
2. Are the main outcomes to be measured clearly described in the introduction or Methods section?
3. Are the characteristics of the patients included in the study clearly described?
4. Are the interventions of interest clearly described?
5. Are the main findings of the study clearly described?
6. Have all important adverse events that may be a consequence of the intervention been reported?
7. Have the characteristics of patients lost to follow-up been described?
8. Have actual probability values been reported?

External validity

9. Were the subjects asked to participate in the study representative of the entire population from which they were recruited?
10. Were those subjects who were prepared to participate representative of the entire population from which they were recruited?

11. Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?

Internal validity

12. Was a comparison group used and properly described?
13. Was an attempt made to blind study subjects to the intervention they have received?
14. Was an attempt made to blind those measuring the main outcomes of the intervention?
15. Were the statistical tests used to assess the main outcomes appropriate?
16. Were the main outcome measures used accurate?

Score: 1 = yes, 0 = no or unable to determine

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