Slide 1: Title Slide: Evidence for IPS

Slide 2: Employment is a critical mental health intervention

(Drake & Wallach, 2020)

Slide 3: Why focus on work

(Bond & Drake, 2014)

Slide 4: Impact of competitive employment on mental health and well-being in general population

(Modini, Joyce, et al., 2016) Other reviews and research studies: (Blustein, 2008; Butterworth et al., 2015; Pohrt, Fodor, Burr, & Kendel, 2021; Waddell & Burton, 2006)

Shorter work week: (Kamerāde, Wang, Burchell, Balderson, & Coutts, 2019)

Slide 5: Impact of competitive employment on mental health and well-being for people with serious mental illness

(Drake & Wallach, 2020; Gibbons & Salkever, 2019; Luciano, Bond, & Drake, 2014; Wallstroem et al., 2021). See also: (Bouwmans, Sonneville, Mulder, & Hakkaart-van Roijen, 2015; Charzyńska, Kucharska, & Mortimer, 2015; van Rijn, Carlier, Schuring, & Burdorf, 2016).

Slide 6: Impact of job loss and extended unemployment

A huge literature documents the negative effects of unemployment. Two reviews are cited here (Paul & Moser, 2009; Roelen et al., 2012). A review article examines the bidirectional relationship between unemployment and physical health (Korpi, 2001).

Slide 7: Unemployment and disability

(Maestas, Mullen, & Strand, 2018)

Slide 8: People with a mental disability want to work but are not hopeful

(Ali, Schur, & Blanck, 2011)

Slide 9: Few people with serious mental illness work

(Hakulinen et al., 2020)

Slide 10: Need for employment services
60% have interest in employment: (Bedell, Draving, Parrish, Gervey, & Guastadisegni, 1998; Drebing et al., 2004; Frounfelker, Wilkiss, Bond, Devitt, & Drake, 2011; Knaeps, Neyens, van Weeghel, & Van Audenhove, 2015; Livermore & Bardos, 2017; McQuilken et al., 2003; Mueser, Salyers, & Mueser, 2001; Ramsay et al., 2011; Rogers, Walsh, Masotta, & Danley, 1991; Westcott, Waghorn, McLean, Statham, & Mowry, 2015; Woltmann, 2009)

<20% employed: (Lindamer et al., 2003; Pandiani & Leno, 2012; Perkins & Rinaldi, 2002; Rosenheck et al., 2006; Salkever et al., 2007)

Only 2% have access: (Bruns et al., 2016; Twamley, Baker, Norman, Lohr, & Resnick, 2013).

Slide 11: IPS developed by Becker and Drake

(Becker & Drake, 1993, 2003)

Slides 12: Four trends

Slide 13: Trend 1: Expanding evidence base

Slide 14: Day treatment conversion studies

Convert day treatment to IPS: (Bailey, Ricketts, Becker, Xie, & Drake, 1998; Becker et al., 2001; Drake et al., 1994; Drake, Becker, Biesanz, Wyzik, & Torrey, 1996; M. Gold & Marrone, 1998)


Slide 15: Employment outcomes in day treatment conversion studies

(Bond, 2004)

Slide 16: Other outcomes in day treatment conversion studies

(Clark, 1998; Torrey, Becker, & Drake, 1995)

Slide 17: Randomized controlled trials of IPS

For list of studies: (Brinchmann et al., 2020; Drake, Bond, Goldman, Hogan, & Karakus, 2016)

Slide 18: Study characteristics of 28 randomized control trials of IPS

(Bejerholm, Areberg, Hofgren, Sandlund, & Rinaldi, 2015; Bond, Kim, et al., 2015; Bond, Salyers, et al., 2007; Burns et al., 2007; Christensen et al., 2019; Davis et al., 2018; Davis et al., 2012; Drake et al., 2013; Drake et al., 1999; Drake, McHugo, Becker, Anthony, & Clark, 1996; Erickson, Roes, Digiacomo, & Burns, 2021; P. B. Gold et al., 2006; Heslin et al., 2011; Hoffmann, Jäckel, Glauser, Mueser, & Kupper, 2014; Killackey et al., 2019; Killackey, Jackson, & McGorry, 2008; Latimer et al., 2006; Lehman et al., 2002; Michon et al., 2014; Mueser et al., 2004; Nuechterlein et al., 2020; Oshima, Sono, Bond, Nishio, & Ito, 2014; Tsang, Chan, Wong,
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& Liberman, 2009; Twamley et al., 2012; Viering et al., 2015; Waghorn, Dias, Gladman, Harris, & Saha, 2014; Wong et al., 2008; Zhang et al., 2017)

Slide 19: Summary statistics for RCTs of IPS
Compiled for this powerpoint

Slide 20: Graph of 28 RCTs
Graph compiled for this powerpoint

Slide 21: Overall findings for 28 RCTs

Slide 22: Systematic reviews of IPS
(Bond, Drake, & Becker, 2012; Brinchmann et al., 2020; Frederick & VanderWeele, 2019; Kinoshita et al., 2013; Marshall et al., 2014; Metcalfe, Drake, & Bond, 2018; Modini et al., 2016; Suijkerbuijk et al., 2017; Weld-Blundell et al., 2021)

Slide 23: Monthly IPS employment rates
(Drake et al., 2013)

Slides 24-25: Other employment outcomes for IPS
(Bond, Campbell, & Drake, 2012; Bond, Drake, & Becker, 2020)

Slide 26: Job tenure for IPS jobs
(Bond & Kukla, 2011; Hoffmann et al., 2014)

Slide 27: Long-term outcomes (% steady workers) in three IPS studies
(Becker, Whitley, Bailey, & Drake, 2007; Hoffmann et al., 2014; Salyers, Becker, Drake, Torrey, & Wyzik, 2004). A long-term follow-up study of an IPS RCT that found no differences in employment outcomes at 6-year follow-up not included because of its high attrition rate (Pichler et al., 2021). The follow-up sample (N =114) comprised 46% of original randomized sample (N = 250).

Slides 28: Long-term outcomes from Mental Health Treatment Study
(Baller et al., 2020)

Slide 29: Long-term outcomes in Norwegian RCT of IPS
(Holmås, Monstad, & Reme, 2021)
Slide 30: IPS is effective in diverse locations

Slide 31: Competitive employment outcomes for IPS in routine practice

(Drake, Bond, & Becker, 2012)

Slide 32: Barriers to IPS in rural areas


Slide 33: Implementation barriers and strategies in rural areas

(Al-Abdulmunem, Drake, & Carpenter-Song, 2021)

Slide 34: IPS fidelity and employment outcomes similar in urban and rural communities

(Haslett, Bond, Drake, Becker, & McHugo, 2011; Luciano, Bond, Becker, & Drake, 2014)

Slide 35: Cost-effectiveness of IPS

Summarized for this powerpoint

Slide 36: IPS cost studies

(Christensen, Kruse, Hellström, & Eplov, 2021; Clark, 1998; Hoffmann et al., 2014; Knapp et al., 2013; Stroupe et al., 2021)

Slide 37: Does IPS have a direct impact on mental health and well being?

Summary of literature: (Kukla & Bond, 2013)

Recent exceptions showing a direct impact for IPS: (Drake et al., 2013; Mueller et al., 2019)

Slide 38: Trend 2: Target subgroups served by IPS

People with justice involvement:
(Bond, Kim, et al., 2015; LePage et al., 2020; LePage et al., 2016)

People receiving disability benefits:
(Bond, Xie, & Drake, 2007; Drake et al., 2013; Sveinsdottir et al., 2016; Viering et al., 2015)

People with mental illness and substance use disorder
(Harrison, Krieger, & Johnson, 2019; Mueser, Campbell, & Drake, 2011)

Homeless people
(Campbell, Bond, & Drake, 2011; Kwan et al., 2021; LePage et al., 2021; Poremski, Rabouin, & Latimer, 2017)
Slide 39: IPS effective across many subgroups

(Campbell et al., 2011; Campbell, Bond, Drake, McHugo, & Xie, 2010)

Slide 40: Equality of access and outcome for people of color

(Perkins, Patel, Willett, Chisholm, & Rinaldi, 2021)

Slide 41: Recent focus on employment services for young adults

WIOA (Mann & Croake, 2018)
Foster care (Ellison et al., 2015)
Coordinated specialty care for first episode of psychosis (Dixon, 2017)

Slide 42: International focus on young adults not in employment, education, and training

(Goldman-Mellor et al., 2016; Maraj et al., 2019; Mawn et al., 2017; O'Dea et al., 2014; Ralston, Feng, Everington, & Dibben, 2016)

Slide 43: Employment rates decline over time after early episode of psychosis

(Ajnakina et al., 2021)

Slide 44-45: Evaluations of IPS for young adults

(Bond, Drake, & Campbell, 2016; Bond, Drake, & Luciano, 2015; Christensen et al., 2019; Ellison et al., 2015; Erickson et al., 2021; Ferguson, Xie, & Glynn, 2012; Hegelstad, Joa, Heitmann, Johannesssen, & Langeveld, 2019; Killackey et al., 2019; Killackey et al., 2008; KPMG, 2019; Noel et al., 2018; Nuechterlein et al., 2020; Rosenheck et al., 2016; Sveinsdottir et al., 2020)

Slides 46-47: Overall effectiveness of IPS for young adults

(Bond, Al Abdulmunem, Marbacher, & Drake, work in progress)

Slide 48: Trend 3: Expanding IPS to new populations

(Bond, Drake, & Pogue, 2019, 2020)
See also: (Probyn et al., 2021)
Recent TANF study: (Chandler, 2020)

Slide 49: 12 RCTs of IPS in new populations

12 RCTs: (Bejerholm, Larsson, & Johanson, 2017; Davis et al., 2018; Davis et al., 2012; Davis et al., 2021; Freedman, Elkin, & Millenky, 2019; Hellström et al., 2017; LePage et al., 2020;
LePage et al., 2016; Lones et al., 2017; Ottomanelli, Barnett, & Goetz, 2014; Reme, Grasdal, Løvvik, Lie, & Øverland, 2015; Reme et al., 2019

**Slide 50: IPS for people with substance use disorder**

IPS-AD: (Marsden et al., 2020)  
Norwegian study: (Rognli et al., 2021)  
Project BEES: (MDRC, 2021)

**Slide 51: Trend 4: Strategies to disseminate, implement, sustain, and expand IPS**

(Bruns et al., 2016) (Salkever, Abrams, Baier, & Gibbons, 2017)

**Slides 52: IPS Learning Community**

History and current status as of 2020: (Drake, Becker, & Bond, 2020)  
Current updates: See [https://ipsworks.org](https://ipsworks.org)  
See also: (Becker, Baker, et al., 2007; Becker, Drake, & Bond, 2014; Becker et al., 2011; Becker, Lynde, & Swanson, 2008; Bond, Drake, Becker, & Noel, 2016b; Bond, McHugo, Becker, Rapp, & Whitley, 2008; Cohen & Becker, 2014; Drake, Becker, Goldman, & Martinez, 2006; Swanson et al., 2011; Swarbrick et al., 2017)

**Slides 53: Map of IPS Learning Community states and nations**

[https://ipsworks.org](https://ipsworks.org)

**Slide 54: Growth of IPS Teams in IPS Learning Community in U.S.**

Compiled from IPS Employment Center data base

**Slide 55: National Growth of IPS (both inside and outside learning community)**

(Johnson-Kwochka, Bond, Drake, Becker, & Greene, 2017; Pogue, Bond, Drake, Becker, & Logsdon, 2021)

**Slide 56: IPS Learning Community employment outcomes**

[https://ipsworks.org](https://ipsworks.org)

**Slide 57: State agency strategies for promoting IPS**

(Bond et al., 2021)

**Slides 58-59: Comparing state agency strategies and funding for IPS within and outside learning community**
Slide 60: IPS fidelity

(Becker, Swanson, Reese, Bond, & McLeman, 2019; Bond, Becker, & Drake, 2011; Bond, Peterson, Becker, & Drake, 2012)

Slide 61: Sustaining IPS services over time

(Bond, Drake, Becker, & Noel, 2016a; Swain, Whitley, McHugo, & Drake, 2010)

Slide 62: Quality of Services in IPS Learning Community Improves Over Time

(Bond, Drake, et al., 2016a)

Slide 63-64: International spread

(Becker & Bond, 2020; Bond, Lockett, & van Weeghel, 2020; Drake, 2020)

IPS programs outside US: (Knutzen, 2020)

Slide 65: IPS RCTs by continent

(Drake, Becker, & Bond, 2019)

Slide 66: Why lower employment rates in Europe?

(Brinchmann et al., 2020; Burns et al., 2007; Metcalfe et al., 2018)

Slide 67: Growth of IPS in the Netherlands

(de Winter, Couwenbergh, van Weeghel, Bergmans, & Bond, 2020)

Slide 68: Growth of IPS in Japan

(Yamaguchi et al., 2020; Yamaguchi et al., 2021)

Slide 69: VR experts rate IPS as highly relevant and highly evidence-based

(Leahy et al., 2018)

Slide 70-71: Overall conclusions and future directions

Slide 72: Contact information
References


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Dixon, L. (2017). What it will take to make coordinated specialty care available to anyone experiencing early schizophrenia: getting over the hump *JAMA Psychiatry, 74*, 7-8.


Knutzen, T. (2020). Number of IPS programs in 12 countries outside US as of May 11, 2020 (personal communication).


