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# The green and the grey: the differing professional development needs of early and mid/late career substance use workers

Ann Roche, Natalie Skinner and Alice McEntee

National Centre for Education and Training on Addiction (NCETA), Flinders University, Adelaide, Australia

## ABSTRACT

The alcohol and other drugs (AOD) sector has shown strong progress with regard to recognition, professionalism and international programs of training and credentialing. Yet little is known regarding the professional development (PD) needs of AOD workers, nor how these needs differ across career stages. Australian AOD workers ( $N=812$ ) from the government and non-government sectors completed an online survey. Early career workers ( $\leq 3$  years' AOD experience) were more likely than mid/late career workers to be non-government employed and earn less than the national average and were less likely to be AOD qualified and have permanent employment. Early career workers were more likely to nominate a need for PD in advanced clinical skills (86.3%,  $p \leq .05$ ), dual diagnoses/mental health (72.6%,  $p \leq .001$ ) and service delivery/partnerships/teamwork (66.4%,  $p \leq .01$ ). These findings highlight an urgent need for advanced skill development to accord with increasing complexity in AOD presentations. High quality care is founded on a skilled and experienced workforce; addressing the ubiquitous PD barriers of time, cost and access is a crucial workforce development priority best addressed through reform to systems of organisational funding, professional accreditation and curriculum development in AOD specialist and generalist health areas.

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Alcohol and other drug workers; workforce development; early career; professional development; inexperienced workers

## Introduction

While substance use is a major contributor to the overall global burden of disease (Degenhardt et al., 2018) it is the skills and capabilities of the alcohol and other drugs (AOD) workforce that are pivotal to quality care. Appropriate professional development (PD) strategies are essential to build the capability of the workforce, and especially of new workforce members. However, it rarely receives the attention warranted. Nonetheless, there is growing interest in mapping developments in the AOD sector and addiction studies to identify effective ways to recruit, train, and support AOD workers and encourage recent graduates into the sector (Edwards & Babor, 2012).

Globally, the AOD workforce has long been plagued by shortages, high turnover, and recruitment challenges with perennial concerns about low remuneration, lack of diversity, and competence (Hoge et al., 2013). Workers' confidence and role legitimacy can further impact implementation of best practice (Loughran et al., 2010; McPhee et al., 2012; Roche et al., 2002), while the ageing of the AOD workforce has further concentrated attention on effective recruitment and retention (Roche et al., 2021). Workforce mal-distribution compounds these problems with chronic shortages in high need rural locations (Canadian Institute for Health Information, 2017; Ewer et al., 2015; Ibragimov et al., 2020; Miller et al., 2010). Important questions arise regarding which PD responses are appropriate for different segments of the workforce, particularly for early career AOD workers.

Although increased recognition of the pervasive nature of AOD problems has heightened the imperative for a highly skilled and competent workforce, there has traditionally been a dearth of specialist undergraduate and postgraduate programs (Pavlovská et al., 2018; Rassool & Oyefeso, 2007). Basic upskilling of workers has been a persistent challenge (Adams et al., 2017; Pavlovská et al., 2019; Taleff, 2003; Taleff & Swisher, 1997; Uchtenhagen et al., 2008), exacerbated by pressure to extend minimum AOD qualifications (Alcohol Tobacco & Other Drug Association, 2011; Victorian Department of Health & Human Services, 2004) and to include high demand topical issues (e.g. mental health comorbidity; Mills et al., 2019).

Such challenges notwithstanding, growth in addiction studies has been reported, see for example specific regions of Europe (Babor, 1993; Butler, 2011; Miovsky et al., 2015; Pavlovská et al., 2018), with sporadic efforts directed to training needs and curriculum standards (Whittinghill et al., 2005), training satisfaction (Rassool & Oyefeso, 2007), and outcomes (McPhee et al., 2012). Other advances include more sophisticated integrated training, credentialing, and licensure processes (Pavlovská et al., 2019), and the development of international programs (International Society of Substance Use Professionals, 2016; United Nations, 2015, 2018). Substantial resources have also been directed towards training doctors (Bell, 2008; De Jong et al., 2011) who generally comprise  $<1\%$  of the AOD workforce (Australian Institute of Health & Welfare, 2016), highlighting potential efforts that

could be afforded to early career workers who have received comparatively less attention.

To address these oversights, this study examined the following research questions:

1. Do the PD needs and barriers encountered by early career workers differ from mid/late career workers?
2. Do the PD needs and barriers encountered by early career workers vary by employment sector (non-government (NGO) vs government)?
3. Do the entry paths of early career workers differ from mid/late career workers?

Early career workers have been variously defined as those under 40 years of age (Bazeley, 2003; Business Jargon, 2020; Voßemer et al., 2018), within 4–8 years of postgraduate qualifications (Bazeley, 2003; Bosanquet et al., 2017; European College of Neuropsychopharmacology, 2020), or within 10 years of first employment (Business Jargon, 2020). Given the lack of consensus, the cut-point of  $\leq 3$  years' experience in AOD work was adopted to define early career.

PD needs are conceptualized as extending beyond training to include organisational and systems factors. Limitations of traditional training strategies largely targeting individual workers have been critiqued (Thom et al., 2017), and an alternative, broader workforce development model recommended (Roche et al., 2002) that incorporates systems and structural factors (Johnston & Burton, 2017; Nelson, 2017; Roche & Nicholas, 2017; Thom et al., 2017). The latter entails a more comprehensive approach to tackling factors that impact the production of a competent workforce (Roche, 2009) and moves beyond the individual to the workforce as a collective and the systems in which they operate. Taking this systems perspective, the current study included a comparison of NGO and government sectors. Organisations and workplaces in these sectors can differ substantially on key workforce development and employment factors such as wages, culture, innovation, client profiles and service models, management practices, job security, organisational capacity and professional development resources (Kerr & Carson, 2010).

## Materials and methods

### Design

A custom-designed cross-sectional national survey comprising validated scales/items was developed in consultation with an expert advisory group. Data were collected from August 2019 to February 2020 through the online survey platform Qualtrics.

Ethics approval was obtained from Flinders University Social and Behavioural Research Ethics Committee, Southern Adelaide Clinical Human Research Ethics Committee and jurisdictional research ethics bodies.

### Participants

Eligible participants were those who provided direct client services in a government or NGO specialist AOD or health/

human services organisation. Participants who did not identify direct client services as one of their main work roles were excluded from the analysis. Participants were recruited via notifications in AOD-related publications, conferences and social media. Industry stakeholders, peak representative bodies and government agencies also promoted the survey.

### Measures

The full survey addressed: social demographics; employment and client characteristics; qualifications and PD needs; working conditions; organisational characteristics; recruitment and retention; and health and wellbeing. The full survey protocol can be accessed online [<https://nceta.flinders.edu.au/workforce/alcohol-other-drugs-national-workforce-survey>].

Measures were drawn from existing instruments or developed by the research team in consultation with an expert advisory group where appropriate instruments were not available.

### Defining early career workers

Early career workers were defined by years of experience in AOD work, with early career workers defined as workers with  $\leq 3$  years AOD experience ( $n = 251$ ) and mid/late career workers defined as those with 4+ years AOD experience ( $n = 561$ ).

### Sector of employment

The question 'What sector does your organisation belong to?' differentiated respondents as government or NGO, with non-respondents ( $n = 101$ ) excluded from associated analyses.

### Demographics

Demographic variables included gender (Roche et al., 2018), Aboriginal and/or Torres Strait Islander identity (Australian Bureau of Statistics, 2014), provision of unpaid care to children/elders/others (Colombo et al., 2011) and AOD lived experience (personal, family/other).

### Qualifications and experience

Respondents indicated their highest general and specialist AOD qualifications, attainment of AOD vocational qualifications (e.g. AOD Skill Set, Certificate IV, or Diploma) and current enrolment in tertiary or vocational AOD specialist training (Victorian Department of Health & Human Services, 2017). Experience was assessed regarding years of experience in the AOD sector (<1 year, 1–3 years, 4–6 years, 7+ years) (Victorian Department of Health & Human Services, 2017).

### Employment characteristics

Employment characteristics comprised sector of employment (government, NGO), remoteness area (metropolitan, non-metropolitan) (Australian Institute of Health & Welfare, 2004), employment contract (permanent, fixed-term/casual), work hours (full-time, part-time), overtime frequency (yes: every-day/a few times a week, no: a few times a month/a few times

a year/never) (Australian Bureau of Statistics, 2013), overtime compensation (yes, no), and form of compensation (financial (yes, no), time-related (yes, no)) (Australian Bureau of Statistics, 2013). Weekly salary was reported as below, average or above the national average (all workers: \$1,257; full-time workers: \$1,658) (Australian Bureau of Statistics, 2020). Prior sector of employment was a single item recoded as: aged/child protection/disability/family services/sexual health/youth; community services/mental health/health; hospitality/retail; education/employment/housing/justice; administration/private/other; and nil (no other prior sector of employment) (Victorian Department of Health & Human Services, 2017).

### PD and supervision

Respondents indicated their level of access to clinical and line supervision (Victorian Department of Health & Human Services, 2017), difficulty accessing AOD-related PD, and factors preventing access to PD. Ten options were provided regarding access difficulties; respondents could select up to three. Options were recoded into six categories.

Respondents indicated their PD needs regarding (1) specific client groups (11 options); and (2) areas of work practice (14 options, recoded into 8 categories). Respondents could select all options that applied.

### Analyses

All analyses were conducted in IBM SPSS Statistics Version 25 (IBM Corporation, 2017). Responses were compared by career stage, then by career stage and employment sector. Group differences were explored via frequency statistics,  $\chi^2$  analyses and binary logistic regression. Data is not displayed if cell size(s) were insufficient to provide a reliable estimate ( $n < 10$ ).

## Results

The total eligible sample ( $N = 812$ ) was predominately female (70.5%), mid-aged (39.6% 50+ years;  $M = 45.4$ ,  $SD = 12.1$ ) and worked in the NGO sector (58.4%); demographic features consistent with the Australian AOD workforce (Duraisingam et al., 2009; Kostadinov et al., 2021; Roche et al., 2021). Nearly one third of the sample were early career workers (30.9%).

### Early career workers

#### Demographics

Early career AOD workers ( $M = 38.5$  years,  $SD = 12.0$ ) were more likely to be NGO employed (64.9% vs 55.4%,  $p \leq .01$ ) and less likely to be AOD qualified at Certificate IV level or above (26.0% vs 58.6%,  $p \leq .001$ ) or to have any AOD vocational qualification (38.5% vs 62.8%,  $p \leq .001$ ) than mid/late career AOD workers ( $M = 48.7$  years,  $SD = 10.7$ ). Most early and mid/late career workers reported AOD lived experience (64.3% vs 68.0%, *ns*) (Table 1).

Compared to mid/late career workers, early career workers were less likely to have permanent employment (66.9% vs 80.4%,  $p \leq .001$ ), less likely to work overtime (31.9% vs 39.4%,  $p \leq .05$ ) and more likely to earn below the national average salary (52.8% vs 34.5%,  $p \leq .001$ ). Of those workers how did work overtime, early career workers were more likely to be financially compensated (20.2% vs 11.8%,  $p \leq .01$ ) (Table 1).

#### PD needs

The top PD need of all workers was specific therapies/complex needs/advanced clinical skills (81.9%). For early career workers the highest priority PD needs also included dual diagnoses/mental health (72.6% vs 58.0%,  $p \leq .001$ ), clients with trauma (69.6% vs 65.4%, *ns*) and service delivery, building/maintaining partnerships, and working with multi-disciplinary teams (66.4% vs 56.0%,  $p \leq .01$ ). Higher proportions of early versus mid/late career workers nominated PD in working with particular clients groups, comprising Aboriginal clients ( $p \leq .001$ ), children/families ( $p \leq .01$ ), CALD clients ( $p \leq .01$ ) and lesbian, gay, bisexual, transgender, queer or intersex (LGBTQI) clients ( $p \leq .05$ ). Early career workers were also more likely to identify a need for PD regarding managing risky behaviours ( $p \leq .001$ ) and AOD issues ( $p \leq .001$ ) (Table 2).

#### PD barriers and supervision

Early career workers were less likely to report difficulty accessing PD (37.1% vs 45.5%,  $p \leq .05$ ) (Table 2). For both groups their top three barriers were personal financial cost (48.4%), lack of time (46.8%), and access difficulties (45.0%). Fewer early than mid-late career workers reported lack of organisation/manager/supervisor support as a barrier (11.2% vs 28.0%,  $p \leq .001$ ).

#### Prior employment

Early career workers' prior work experience was typically community services, mental health or health sector, 11.4% had not worked in another area (Table 3). Early career, compared to mid/late career workers, were more likely to have previously worked in aged/child protection/disability/family/sexual health/youth services (22.0% vs 13.0%,  $p \leq .001$ ) and fewer had worked in community services/mental health/health (36.0% vs 49.1%,  $p \leq .001$ ) (Table 3).

Two binary logistic regressions were conducted to identify the personal factors (social demographics, qualifications and experience) and employment factors (employment characteristics, professional development and supervision) that best differentiated between early (1) and mid/late career workers (0) (see Table 1 for full list of variables). Attainment of a vocational AOD qualification was the only personal factor that differentiated early and mid/late career workers ( $\chi^2(5) = 36.64$ ,  $p \leq .001$ , Nagelkerke  $R^2 = .07$ ): early career workers were less likely to have a vocational AOD qualification ( $b = -.923$ ,  $p \leq .001$ ,  $OR = .397$  (95% CI: .285, .554)). Three employment factors most strongly differentiated the two groups ( $\chi^2(8) = 41.21$ ,  $p \leq .001$ , Nagelkerke  $R^2 = .09$ ): early career workers were less likely to have permanent employment ( $b = -.620$ ,

**Table 1.** Workforce profile by career stage and sector of employment, per cent.

Variables	Early career (≤3 years)			Mid/late career (4+ years)			All		
	Govt	NGO	All	Govt	NGO	All	Govt	NGO	All
Sample size	<i>n</i> = 88	<i>n</i> = 163	<i>n</i> = 251	<i>n</i> = 250	<i>n</i> = 311	<i>n</i> = 561	<i>n</i> = 338	<i>n</i> = 474	<i>n</i> = 812
%	35.1	64.9	100.0	44.6	55.4	100.0	41.6	58.4	100.0
Social demographics									
Female	80.2	69.8	73.5	70.7	68.0	69.2	73.2	68.6	70.5
Aboriginal and/or Torres Strait Islander	n/a	9.4	6.9	4.5	7.2	6.0	4.0	7.9	6.3
Provide unpaid care: <sup>a</sup> Yes	44.3	38.0	40.2	46.4	43.1	44.6	45.9	41.4	43.2
Lived experience: Yes	51.2**	71.3**	64.3	58.4***	75.7***	68.0	56.6 <sup>oo</sup>	74.2 <sup>oo</sup>	66.9
Personal lived experience: Yes	53.5	47.3	49.0	38.0***	59.6***	51.4	41.6 <sup>oo</sup>	55.6 <sup>oo</sup>	50.7
Family/other lived experience: Yes	79.1	75.0	76.1	85.2***	68.4***	74.9	83.8	70.6 <sup>oo</sup>	75.2
Qualifications and experience									
Degree general qualification: <sup>b</sup> Yes	65.9	54.7	58.7	60.4*	51.8*	55.6	61.9 <sup>oo</sup>	52.8 <sup>oo</sup>	56.6
Highest AOD qual Cert IV or above: <sup>c</sup> Yes	21.6	28.4	26.0 <sup>+++</sup>	58.5	58.7	58.6 <sup>+++</sup>	48.8	48.3	48.5
Any AOD vocational qualification: Yes	27.9**	44.3**	38.5 <sup>+++</sup>	54.6***	69.2***	62.8 <sup>+++</sup>	47.5 <sup>oo</sup>	60.7 <sup>oo</sup>	55.3
Enrolled in AOD qualification: Yes	23.3	26.6	25.4	15.5***	33.1***	25.2	17.5 <sup>oo</sup>	30.8 <sup>oo</sup>	25.3
Employment characteristics									
Remoteness: Metropolitan	62.1	60.1	60.8	59.4	61.9	60.8	60.1	61.3	60.8
Permanent: Yes	67.0	66.9	66.9 <sup>+++</sup>	86.8***	75.2***	80.4 <sup>+++</sup>	81.7 <sup>oo</sup>	72.4 <sup>oo</sup>	76.2
Full-time: Yes	60.0	55.1	56.8	60.8	61.0	60.9	60.6	59.0	59.7
Additional work roles: <sup>d</sup>									
Management	n/a	n/a	n/a	10.8***	21.9***	16.9	8.6 <sup>oo</sup>	15.8 <sup>oo</sup>	12.8
Administration/professional support	23.9	26.4	25.5	20.4*	28.3*	24.8	21.3	27.6	25.0
Research/project work	n/a	10.4	9.2	10.0	14.8	12.7	9.2	13.3	11.6
Frequent overtime: <sup>e</sup> Yes	31.8	31.9	31.9 <sup>†</sup>	35.6	42.4	39.4 <sup>†</sup>	34.6	38.8	37.1
Compensation for overtime: Yes compensated	73.4	82.4	79.2	67.2**	78.5**	73.5	68.8 <sup>oo</sup>	79.8 <sup>oo</sup>	75.2
Financial	25.0	17.6	20.2 <sup>††</sup>	10.6	12.9	11.8 <sup>††</sup>	14.2	14.5	14.4
Time-related	54.7	68.9	63.9	56.6**	70.0**	64.0	56.1 <sup>oo</sup>	69.6 <sup>oo</sup>	64.0
Salary relative to national average: <sup>f</sup>									
Below	46.3	56.2	52.8 <sup>+++</sup>	23.9***	43.0***	34.5 <sup>+++</sup>	29.7 <sup>oo</sup>	47.5 <sup>oo</sup>	40.2
Average	17.1**	32.7**	27.2	13.7***	31.1***	23.3	14.6 <sup>oo</sup>	31.6 <sup>oo</sup>	24.5
Above	36.6***	11.1***	20.0 <sup>†††</sup>	62.4***	25.9***	42.1 <sup>†††</sup>	55.7	20.9 <sup>oo</sup>	35.3

\* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$  for comparison between government and NGO sectors within each career stage group. <sup>†</sup> $p \leq .05$ , <sup>††</sup> $p \leq .01$ , <sup>†††</sup> $p \leq .001$  for overall comparison between career stage groups. <sup>o</sup> $p \leq .05$ , <sup>oo</sup> $p \leq .01$ , <sup>ooo</sup> $p \leq .001$  for overall comparison between sector groups. n/a: reliable estimate not available as <10 cases. NGO: non-government; AOD: alcohol and other drugs.

<sup>a</sup>Care may be provided to children, older people, person with a disability or other.

<sup>b</sup>Yes: undergraduate degree/masters/PhD/MBBS/medical fellowship. No: year 12 or less/certificate (I-IV)/diploma/advanced diploma/graduate certificate/graduate diploma.

<sup>c</sup>Yes: Cert IV in AOD/Diploma/Advanced Diploma/undergraduate degree/Grad cert/Grad diploma/masters/PhD/fellowship. No: nil/accredited short course/one or more core competencies from AOD skill set.

<sup>d</sup>In addition to 'direct client services role'.

<sup>e</sup>Frequent = a few times a week or more often.

<sup>f</sup>The Australian average weekly income in November 2019 was \$1,257 for all employees (ordinary time earnings) (ABS, 2020).

$p \leq .01$ ,  $OR = .538$  (95% CI: .362, .779)), more likely have an income below the national average ( $b = -.786$ ,  $p \leq .000$ ,  $OR = 2.194$  (95% CI: 1.456, 3.307)) and more likely to receive regular line supervision ( $b = -.420$ ,  $p \leq .05$ ,  $OR = 1.522$  (95% CI: 1.047, 1.139)).

## Government vs non-government early career workers

### Demographics

NGO and government early career workers' profiles were similar with a few exceptions (Table 1). Early career NGO workers were more likely to have lived experience (71.3% vs 51.2%,  $p \leq .01$ ) and to have an AOD vocational qualification (44.3% vs 27.9%,  $p \leq .01$ ). Early career NGO workers were significantly less likely than their government counterparts to earn above the average national salary (11.1% vs 36.6%,  $p \leq .001$ ).

### PD needs, barriers and supervision

PD needs were similar for government and NGO early career workers (Table 2). Similar proportions of government and

NGO early career workers (44.3% vs 33.1%, *ns*) reported difficulty accessing PD: the top barrier for both groups was financial cost to self (Table 2).

### Prior employment

Government-employed early career workers were most likely to have prior work experience in community services, mental health or health sector (58.0% vs 24.1%,  $p \leq .01$ ) than their NGO counterparts (Table 3).

## Discussion

This paper provides a unique assessment of the PD needs of early career workers in the AOD sector, with a specific focus on workers in NGO and government sectors. Priority PD interests included advanced clinical skills, working with complex clients (trauma, dual diagnoses), service delivery, building and maintaining partnerships, and working with multi-disciplinary teams. That is, workers with less AOD experience identified both advanced clinical skills and the acquisition of

**Table 2.** Professional development barriers and needs by career stage and sector of employment, per cent.

Variables	Early career (≤3 years)			Mid/late career (4+ years)			All		
	Govt	NGO	All	Govt	NGO	All	Govt	NGO	All
<b>Professional development and supervision</b>									
Clinical supervision: Yes	89.4	86.2	87.3	80.2***	90.4***	85.9	82.6 <sup>oo</sup>	89.0 <sup>oo</sup>	86.3
Line supervision: Yes	61.5	72.6	68.8 <sup>tt</sup>	46.6***	67.4***	58.7 <sup>tt</sup>	50.7 <sup>ooo</sup>	69.1 <sup>ooo</sup>	61.8
Difficulty accessing professional development	44.3	33.1	37.1 <sup>t</sup>	46.2	45.0	45.5 <sup>t</sup>	45.7	40.9	42.9
<b>Professional development barriers</b>									
Financial cost to self	53.1	51.8	52.2	42.5	50.0	46.7	45.3	50.6	48.4
Insufficient time at work/outside work	48.4	48.2	48.3	49.7	43.4	46.2	49.4	45.0	46.8
Geographic constraints/difficulty accessing training	43.8	43.0	43.3	50.3	42.0	45.7	48.6	42.4	45.0
Financial cost to employer	21.9 <sup>*</sup>	39.5 <sup>*</sup>	33.1	24.9***	44.2***	35.6	24.1 <sup>ooo</sup>	42.6 <sup>ooo</sup>	34.9
Staff shortages	17.2	19.3	18.5	34.3***	16.8***	24.6	29.8 <sup>ooo</sup>	17.6 <sup>ooo</sup>	22.7
Lack support manager/supervisor/organisation	n/a	11.4	11.2 <sup>ttt</sup>	29.8	26.5	28.0 <sup>ttt</sup>	24.9	21.5	22.9
<b>Professional development needs</b>									
Specific therapies/complex needs/advanced clinical skills	88.0	85.4	86.3 <sup>t</sup>	82.7	77.4	79.7 <sup>t</sup>	84.1	80.4	81.9
Clients with dual diagnoses/mental health	75.6	71.0	72.6 <sup>ttt</sup>	60.8	55.9	58.0 <sup>ttt</sup>	65.0	61.3	62.8
<b>Clients with trauma</b>									
Service delivery/partnerships/multi-disciplinary teams	73.2	67.7	69.6	67.5	63.8	65.4	69.0	65.2	66.8
Aboriginal clients	61.3	68.9	66.4 <sup>tt</sup>	53.5	58.0	56.0 <sup>tt</sup>	55.6	62.0	59.4
Children/families	58.5	63.9	62.0 <sup>ttt</sup>	47.6	46.6	47.0 <sup>ttt</sup>	50.7	52.8	51.9
Clients with family violence	59.8	58.7	59.1 <sup>tt</sup>	50.5	46.6	48.3 <sup>tt</sup>	53.1	50.9	51.8
Training on risky behaviours	56.1	58.7	57.8	49.1	52.7	51.1	51.0	54.8	53.3
CALD clients	49.3	60.9	57.1 <sup>ttt</sup>	44.1	36.6	39.9 <sup>ttt</sup>	45.5	45.6	45.5
Forensic clients	51.2	57.4	55.3 <sup>tt</sup>	41.0	45.9	43.8 <sup>tt</sup>	43.9	50.0	47.5
Leadership & management	58.5	53.5	55.3	51.4	46.2	48.5	53.4	48.8	50.7
Clinical skills	49.3	55.0	53.1	52.5	58.0	55.6	51.6	56.9	54.7
Clients with gambling issues	58.7	49.7	52.7	47.5	41.6	44.2	50.5	44.6	47.0
Clients with ABI	52.4	45.2	47.7	44.3	44.1	44.2	46.6	44.5	45.3
Training on AOD issues	54.9	43.9	47.7	55.2 <sup>*</sup>	45.9 <sup>*</sup>	49.9	55.1 <sup>oo</sup>	45.2 <sup>oo</sup>	49.2
LGBTQI clients	49.3	46.4	47.3 <sup>ttt</sup>	37.6	30.4	33.6 <sup>ttt</sup>	40.8	36.3	38.1
Providing clinical supervision	41.5	48.4	46.0 <sup>t</sup>	35.8	41.6	39.1 <sup>t</sup>	37.4	44.0	41.3
Older clients	40.0	48.3	45.6	37.1 <sup>*</sup>	47.1 <sup>*</sup>	42.7	37.9 <sup>oo</sup>	47.5 <sup>oo</sup>	43.6
Evidence-based practice	43.9	43.2	43.5	51.9	43.7	47.3	49.7	43.5	46.0
	42.7	43.0	42.9	44.1	38.5	41.0	43.7	40.2	41.6

\* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$  for comparison between government and NGO sectors within each career stage group. <sup>t</sup> $p \leq .05$ , <sup>tt</sup> $p \leq .01$ , <sup>ttt</sup> $p \leq .001$  for overall comparison between age groups. <sup>o</sup> $p \leq .05$ , <sup>oo</sup> $p \leq .01$ , <sup>ooo</sup> $p \leq .001$  for overall comparison between sector groups. n/a: reliable estimate not available as <10 cases. NGO: non-government; AOD: alcohol and other drugs; CALD: culturally and linguistically diverse; ABI: acquired brain injury; LGBTQI: lesbian, gay, bisexual, transgender, queer or intersex.

**Table 3.** Alcohol and other drug workers' sector of prior employment by career stage, per cent.

Variables	Early career (≤3 years)			Mid/late career (4+ years)			All		
	Govt	NGO	All	Govt	NGO	All	Govt	NGO	All
Community services/mental health/health	58.0***	24.1***	36.0 <sup>ttt</sup>	67.2***	34.2***	49.1 <sup>ttt</sup>	64.8 <sup>ooo</sup>	30.7 <sup>ooo</sup>	45.0
Aged/child protection/disability/family/sexual health/youth	13.6 <sup>*</sup>	26.5 <sup>*</sup>	22.0 <sup>ttt</sup>	10.0	15.5	13.0 <sup>ttt</sup>	10.9 <sup>ooo</sup>	19.3 <sup>ooo</sup>	15.8
Administration/private/other	n/a	19.8	16.0	8.0***	21.7***	15.5	8.3 <sup>ooo</sup>	21.0 <sup>ooo</sup>	15.7
Hospitality/retail	n/a	15.4	12.0	4.8**	10.5**	7.9	5.0 <sup>ooo</sup>	12.2 <sup>ooo</sup>	9.2
Education/employment/housing/justice	n/a	9.9	7.2	7.6	12.2	10.1	6.2 <sup>ooo</sup>	11.4 <sup>ooo</sup>	9.2
Nil (i.e. haven't worked in another sector)	11.4	n/a	6.8	n/a	5.9	4.3	4.7	5.4	5.1

\* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$  for comparison between government and NGO sectors within each career stage group. <sup>t</sup> $p \leq .05$ , <sup>tt</sup> $p \leq .01$ , <sup>ttt</sup> $p \leq .001$  for overall comparison between age groups. <sup>o</sup> $p \leq .05$ , <sup>oo</sup> $p \leq .01$ , <sup>ooo</sup> $p \leq .001$  for overall comparison between sector groups. n/a: reliable estimate not available as <10 cases. NGO: non-government.

professional engagement skills, or soft skills (Kyllonen, 2013; Lazarus, 2013), to function effectively in the AOD system as their greatest PD needs. These broader PD areas are consistent with our more comprehensive conceptualization of workforce development (Roche, 2009) which encompasses a range of systems issues that extend beyond content knowledge and training (Hoge et al., 2013; Nelson, 2017; Pavlovská et al., 2019). Early career workers also prioritised the development of skills to work with specific client groups (including children and families, Aboriginal, CALD, LGBTQI and ABI clients), in addition to general AOD issues and managing risky behaviours.

For AOD workers overall, regardless of years of experience or sector of employment, the top priority PD areas identified were advanced clinical skills and clients with complex needs. This finding underscores a pervasive lack of focus on advanced skill development in spite of increasing complexity

in AOD presentations. It is feasible that high workforce turnover rates may have contributed to a disproportionate emphasis on introductory and basic skill acquisition. Such drivers notwithstanding, workers at all levels are clearly calling for greater upskilling in more complex areas. To not heed this clarion call, and tackle the ubiquitous PD barriers of time, cost and access issues identified in this study, leaves the sector vulnerable to increased turnover, poor quality service provision and compromised clinical care.

### Characteristics of early career workers

A substantial proportion (12%) of early career workers had joined the AOD sector after previously working in hospitality or retail, areas which provide little relevant background for

undertaking AOD work. For a further one in seven workers, employment in the AOD sector was their only work experience. These prior career paths flag a pressing need for commensurate PD opportunities that can provide a sound foundation in the addictions (Thom et al., 2017) and that correspond with employers increasing expectations, if not requirements, for workers to possess higher formal qualifications (Mills et al., 2019; Pidd et al., 2012; Taleff & Swisher, 1997).

It is particularly noteworthy that the majority of both early and mid/late career workers had a general tertiary qualification, perhaps indicating the growing professionalism of the sector (Butler, 2011; Edwards & Babor, 2012). This encouraging finding also suggests that workers with different skill sets, backgrounds and aspirations may be increasingly attracted to, or actively recruited into, the AOD sector. Additionally, workers with graduate level qualifications are well placed to undertake advanced training and acquire new skills, compared to workers who enter the sector with more limited or basic qualifications. It is also noteworthy, but not unexpected, that early career workers were less likely than mid/late career workers to hold vocational AOD qualifications.

AOD lived experience was very common and did not differ significantly between early career and mid/late career workers. Such personal life experiences highlight the need to decrease AOD stigma and other stressors, particularly for early career workers who are more vulnerable to work-related stress and burnout (Gómez-Urquiza et al., 2017; Lim et al., 2010). It is also a salutary reminder that, while AOD workers hold their clients in high regard (Van Boekel et al., 2014), their own roles are often perceived as low status, stigmatized and entail high levels of emotional labour (Ewer et al., 2015; Gilchrist et al., 2011). Hence, there is an elevated need for related safeguards and supports for young and/or inexperienced workers.

### **PD barriers**

The main PD barriers for all workers, regardless of employment sector, were personal cost, lack of time and difficulty accessing training. These are all systems factors that are amenable to remediation via top-down strategies. Limited time availability during work hours may indicate staff shortages or lack of backfill options; whilst insufficient time outside work may reflect social and/or family commitments prioritized over PD. These are important distinctions that require greater attention.

Limited access to quality training and PD can curtail any worker's ability to deliver best practice treatments. Although the majority of early career workers were located in metropolitan locations, major challenges exist in the provision of PD to the 40% of workers in non-metropolitan areas. Higher prevalence, problem severity and service need creates an even greater imperative to recruit, retain and support early career workers in rural locations (Canadian Institute for Health Information, 2017; Ewer et al., 2015; Miller et al., 2010).

While effective training can facilitate implementation of evidence-based interventions, improve treatment outcomes and lessen the burden on services, it has typically been provided via face-to-face contact (Kostadinov et al., 2018). Challenges encountered with such training include difficulty attending at required times and locations, short lived effects, and prohibitive costs. Such barriers raise the spectre of a wider role for online and e-delivery of training and support (Calder et al., 2017), an issue of even greater salience in the context of the current COVID-19 pandemic and associated requirements for social distancing and/or isolation (Jesus et al., 2020). Access to well-designed, cost-effective online resources has potential to reach large numbers of workers and improve knowledge, skills and adoption of evidence-based treatments, with systematic reviews identifying the strength of online training (Calder et al., 2017). Ironically, due to COVID-19, online and e-delivery training may become increasingly the new norm given adaptations made by many services to accommodate working and studying remotely.

At present, many mandatory AOD training programs are expensive and guarantee no corresponding increase in salary or automatically conferred promotional opportunities. This represents a potential impediment to the uptake of ongoing training as a significantly higher proportion of early career workers earned a salary below the national average and were less likely to hold permanent positions. While the latter is not an unpredictable finding, it nonetheless underscores the need to ensure the affordability of PD and a commensurate return on investment. Worth noting are international efforts to increase addictions training and skill development in University health, medicine and social services curricula (e.g. the International Consortium of Universities for Drug Demand Reduction (ICUDDR)), which will further boost the capacity and skill of early career workers.

### **Strengths and limitations**

The current study used data from a large Australian AOD workforce survey that addressed a wide range of contemporary workforce development issues. It is the first Australian study that has focussed on early career workers, their PD needs and prior work experience. As such, it provides invaluable information about ways to recruit and support this crucial segment of the AOD workforce. However, as the analyses were not pre-registered the results should be considered exploratory. In the absence of an established sampling frame or other definitive denominator data that could confirm sample representativeness, we note that the sample was drawn proportionally from all jurisdictions and was typical of this workforce in terms of age, gender, education levels, and sector of employment distribution (Duraisingam et al., 2009; Kostadinov et al., 2021; Roche et al., 2021). Reflecting the Australian AOD workforce, participants reported diverse occupations and roles. Whilst the measures of PD needs were designed to apply to client service workers in general, it is acknowledged that early career AOD workers in specific occupations or specialist roles may have particular PD needs.

## Conclusion

AOD work is complex, dynamic and challenging. An appropriately qualified, trained and supported workforce is central to the sector's capacity to deliver high quality services. Early career workers are critical to quality service provision and need to be supported by evidence-based workforce development strategies that address identified priorities and barriers. They have specific PD needs that differ from those of more established workers. Perhaps counter-intuitively, their top PD needs were systems soft skills. Addressing identified PD needs and barriers is essential to develop and retain early career workers and warrants tailored attention given their potentially different work styles, values and aspirations (Naim & Lenka, 2018). A 'one size fits all' reductionist approach to workforce development is inadequate to ensure that early career workers are appropriately trained and supported and to safeguard the sustainability of the AOD workforce to meet increasingly complex demands.

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## References

- Adams, P. J., Sellman, D., Newcombe, D., Adamson, S., White, S., & Deering, D. (2017). Postgraduate alcohol and other drug practitioner training in New Zealand: Significant influences. *Journal of Studies on Alcohol and Drugs*, 78(3), 468–474. <https://doi.org/10.15288/jsad.2017.78.468>
- Alcohol Tobacco and Other Drug Association. (2011). *ACT alcohol and other drug qualifications strategy*. Retrieved from [http://www.atoda.org.au/wpcontent/uploads/2011/09/AOD\\_QS\\_Policy\\_Final\\_2017-1.pdf](http://www.atoda.org.au/wpcontent/uploads/2011/09/AOD_QS_Policy_Final_2017-1.pdf)
- Australian Bureau of Statistics (ABS). (2013). *Working time arrangements, Australia, November 2012, Cat. No. 3642.0*. Retrieved from Australian Bureau of Statistics <https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6342.0Main+Features1November%202012>
- Australian Bureau of Statistics (ABS). (2014). *Indigenous status standard, version 1.5, Cat. No. 1200.0.55.008*. Retrieved from Australian Bureau of Statistics <https://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/1200.0.55.008>
- Australian Bureau of Statistics (ABS). (2020). *Average weekly earnings, Australia, May 2020*. Retrieved from Australian Bureau of Statistics <https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/7F76D15354BB25D5CA2575BC001D5866?opendocument>
- Australian Institute of Health and Welfare. (2004). *Rural, regional and remote health: A guide to remoteness classifications*. Retrieved from Australian Institute of Health and Welfare <https://www.aihw.gov.au/reports/rural-remote-australians/guide-to-remoteness-classifications/contents/table-of-contents>
- Australian Institute of Health and Welfare. (2016). *Medical practitioners workforce 2015: Medical practitioners overview 2015 data tables*. Retrieved from Australian Institute of Health and Welfare <https://www.aihw.gov.au/reports/workforce/medical-practitioners-workforce-2015/data>
- Babor, T. (1993). Beyond the invisible college: A science policy analysis of alcohol and drug research. In G. Edwards, J. Strang & J. Jaffe (Eds.), *Drugs, alcohol and tobacco: Making the science and policy connections* (pp. 48–69). Oxford University Press.
- Bazeley, P. (2003). Defining 'early career' in research. *Higher Education*, 45(3), 257–279. <https://doi.org/10.1023/A:1022698529612>
- Bell, J. (2008). Speciality recognition of addiction medicine in Australia. *Addiction*, 103(5), 701–702. <https://doi.org/10.1111/j.1360-0443.2007.02121.x>
- Bosanquet, A., Mailey, A., Matthews, K. E., & Lodge, J. M. (2017). Redefining 'early career' in academia: A collective narrative approach. *Higher Education Research & Development*, 36(5), 890–902. <https://doi.org/10.1080/07294360.2016.1263934>
- Business Jargon. (2020). *What are career states? Definitions and meaning*. Retrieved from <https://businessjargons.com/career-stages.html>
- Butler, S. (2011). Addiction counsellors in the Republic of Ireland: Exploring the emergence of a new profession. *Drugs: Education, Prevention and Policy*, 18(4), 295–302. <https://doi.org/10.3109/09687637.2010.519360>
- Calder, R., Ainscough, T., Kimergård, A., Witton, J., & Dyer, K. R. (2017). Online training for substance misuse workers: A systematic review. *Drugs: Education, Prevention and Policy*, 24(6), 430–442. <https://doi.org/10.1080/09687637.2017.1318113>
- Canadian Institute for Health Information. (2017). *Alcohol harm in Canada: Examining hospitalizations entirely caused by alcohol and strategies to reduce alcohol harm*. Retrieved from <https://www.cihi.ca/sites/default/files/document/report-alcohol-hospitalizations-en-web.pdf>
- Colombo, F., Llana-Nozal, A., Mercier, J., Tjadens, F. (2011). *Help wanted? OECD*. Retrieved from <http://www.oecd.org/els/health-systems/help-wanted-9789264097759-en.htm>
- De Jong, C., Luycks, L., & Delicat, J.-W. (2011). The master in addiction medicine program in the Netherlands. *Substance Abuse*, 32(2), 108–114. <https://doi.org/10.1080/08897077.2011.555713>
- Degenhardt, L., Charlson, F., Ferrari, A., Santomauro, D., Erskine, H., Mantilla-Herrera, A., Whiteford, H., Leung, J., Naghavi, M., Griswold, M., Rehm, J., Hall, W., Sartorius, B., Scott, J., Vollset, S. E., Knudsen, A. K., Haro, J. M., Patton, G., Kopec, J., ... Vos, T. (2018). The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990–2016: A systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Psychiatry*, 5(12), 987–1012. [https://doi.org/10.1016/S2215-0366\(18\)30337-7](https://doi.org/10.1016/S2215-0366(18)30337-7)
- Duraisingam, V., Pidd, K., & Roche, A. M. (2009). The impact of work stress and job satisfaction on turnover intentions: A study of Australian specialist alcohol and other drug workers. *Drugs*, 16(3), 217–231. <https://doi.org/10.1080/09687630902876171>
- Edwards, G., & Babor, T. F. (2012). *Addiction and the making of professional careers*. Transaction Publishers.
- European College of Neuropsychopharmacology. (2020). *Definition of an early career scientist*. Retrieved from <https://www.ecnp.eu/early-career-scientists/definition-early-career-scientist>
- Ewer, P. L., Teesson, M., Sannibale, C., Roche, A., & Mills, K. L. (2015). The prevalence and correlates of secondary traumatic stress among alcohol and other drug workers in Australia. *Drug and Alcohol Review*, 34(3), 252–258. <https://doi.org/10.1111/dar.12204>
- Gilchrist, G., Moskalewicz, J., Slezakova, S., Okruhlica, L., Torrens, M., Vajd, R., & Baldacchino, A. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, 106(6), 1114–1125. <https://doi.org/10.1111/j.1360-0443.2011.03407.x>
- Gómez-Urquiza, J. L., Vargas, C., De la Fuente, E. I., Fernández-Castillo, R., & Cañadas-De la Fuente, G. A. (2017). Age as a risk factor for burnout syndrome in nursing professionals: A meta-analytic study. *Research in Nursing & Health*, 40(2), 99–110. <https://doi.org/10.1002/nur.21774>
- Hoge, M. A., Stuart, G. W., Morris, J., Flaherty, M. T., Paris, M. Jr, & Goplerud, E. (2013). Mental health and addiction workforce development: Federal leadership is needed to address the growing crisis. *Health Affairs*, 32(11), 2005–2012. <https://doi.org/10.1377/hlthaff.2013.0541>
- IBM Corporation. (2017). *IBM SPSS statistics (Version 25.0) Armonk*. IBM Corporation.
- Ibragimov, U., Young, A. M., & Cooper, H. L. (2020). Understanding rural risk environments for drug-related harms: Progress, challenges, and steps forward. *International Journal of Drug Policy*, 85, 102926. <https://doi.org/10.1016/j.drugpo.2020.102926>
- International Society of Substance Use Professionals. (2016). *Universal prevention curriculum*. Retrieved from <https://www.issup.net/training/universal-prevention-curriculum>



- Jesus, T. S., Landry, M. D., & Jacobs, K. (2020). A 'new normal' following COVID-19 and the economic crisis: Using systems thinking to identify challenges and opportunities in disability, telework, and rehabilitation. *Work*, 67(1), 37–46. <https://doi.org/10.3233/WOR-203250>
- Johnston, L., & Burton, G. (2017). What is this thing called workforce development? A Scottish perspective. *Drugs: Education, Prevention and Policy*, 24(6), 455–460. <https://doi.org/10.1080/09687637.2016.1239698>
- Kerr, L., & Carson, E. (2010). Contractualism, workforce-development and sustainability in the community-services sector in Australia. *Third Sector Review*, 16(1), 69–86.
- Kostadinov, V. R., Roche, A. M., McEntee, A., Allan, J. M., Meumann, N. R., & McLaughlin, L. L. (2018). Brief workshops to teach drug and alcohol first aid: A pilot evaluation study. *Drug and Alcohol Review*, 37(1), 23–27. <https://doi.org/10.1111/dar.12619>
- Kostadinov, V., Roche, A. M., McEntee, A., Duraisingam, V., Hodge, S., & Chapman, J. (2021). Strengths, challenges, and future directions for the non-government alcohol and other drugs workforce. *Journal of Substance Use*, 26(3), 261–267. <https://doi.org/10.1080/14659891.2020.1812125>
- Kyllonen, P. C. (2013). Soft skills for the workplace. *Change: The Magazine of Higher Learning*, 45(6), 16–23. <https://doi.org/10.1080/00091383.2013.841516>
- Lazarus, A. (2013). Soften up: The importance of soft skills for job success. *Physician Executive*, 39(5), 40.
- Lim, N., Kim, E. K., Kim, H., Yang, E., & Lee, S. M. (2010). Individual and work-related factors influencing burnout of mental health professionals: A meta-analysis. *Journal of Employment Counseling*, 47(2), 86–96. <https://doi.org/10.1002/j.2161-1920.2010.tb00093.x>
- Loughran, H., Hohman, M., & Finnegan, D. (2010). Predictors of role legitimacy and role adequacy of social workers working with substance-using clients. *British Journal of Social Work*, 40(1), 239–256. <https://doi.org/10.1093/bjsw/bcn106>
- McPhee, I., Duffy, T., & Martin, C. R. (2012). Optimising service provision by non-specialist advisors: The impact of alcohol and drugs awareness training on perceived levels of role legitimacy, adequacy and satisfaction. *Drugs and Alcohol Today*, 12(1), 38–44. <https://doi.org/10.1108/17459261211211692>
- Miller, P. G., Coomber, K., Staiger, P., Zinkiewicz, L., & Toumbourou, J. W. (2010). Review of rural and regional alcohol research in Australia. *Australian Journal of Rural Health*, 18(3), 110–117. <https://doi.org/10.1111/j.1440-1584.2010.01133.x>
- Mills, K., Marel, C., Madden, E., Teeson, M. (2019). *Lessening the burden of comorbid substance use and mental disorders through evidence-based care: The case for a national minimum qualifications strategy*. Retrieved from [https://www.pc.gov.au/\\_data/assets/pdf\\_file/0003/240798/sub280-mental-health.pdf](https://www.pc.gov.au/_data/assets/pdf_file/0003/240798/sub280-mental-health.pdf)
- Miovsky, M., Miller, P. M., Grund, J.-P. C., Belackova, V., Gabrhelik, R., & Libra, J. (2015). Academic education in addictology (addiction science) in the Czech Republic: Analysis of the (pre-1989) historical origins. *Nordic Studies on Alcohol and Drugs*, 32(5), 527–538. <https://doi.org/10.1515/nsad-2015-0050>
- Naim, M. F., & Lenka, U. (2018). Development and retention of Generation Y employees: A conceptual framework. *Employee Relations*, 40(2), 433–455. <https://doi.org/10.1108/ER-09-2016-0172>
- Nelson, A. (2017). Addiction workforce development in Aotearoa New Zealand. *Drugs: Education, Prevention and Policy*, 24(6), 461–468. <https://doi.org/10.1080/09687637.2017.1311841>
- Pavlovská, A., Miovský, M., & Vacek, J. (2018). Addiction specialists in the Czech Republic: What is their place on the job market? *A Survey among Graduates in Addictology*, 18(1), 29–39.
- Pavlovská, A., Peters, R. H., Gabrhelik, R., Miovský, M., Sloboda, Z., & Babor, T. F. (2019). Overview of the university-based addiction studies programs in the United States. *Journal of Substance Use*, 24(1), 55–60. <https://doi.org/10.1080/09687637.2016.1223603>
- Pidd, K., Roche, A., Duraisingam, V., & Carne, A. (2012). Minimum qualifications in the alcohol and other drugs field: Employers' views. *Drug and Alcohol Review*, 31(4), 514–522. <https://doi.org/10.1111/j.1465-3362.2011.00392.x>
- Rassool, G. H., & Oyefeso, A. (2007). Predictors of course satisfaction and perceived course impact of addiction nurses undertaking a postgraduate diploma in addictive behaviour. *Nurse Education Today*, 27(3), 256–265. <https://doi.org/10.1016/j.nedt.2006.05.005>
- Roche, A., Kostadinov, V., Hodge, S., Duraisingam, V., McEntee, A., Pidd, K., & Nicholas, R. (2018). *Characteristics and wellbeing of the NSW non-government AOD workforce*. National Centre for Education and Training on Addiction, Flinders University.
- Roche, A., McEntee, A., Kostadinov, V., Hodge, S., & Chapman, C. (2021). Older workers in the alcohol and other drug sector: Predictors of workforce retention. *Australasian Journal on Ageing*. <https://doi.org/10.1111/ajag.12917>
- Roche, A. M. (2009). New horizons in AOD workforce development. *Drugs: Education, Prevention and Policy*, 16(3), 193–204. <https://doi.org/10.1080/09687630902886386>
- Roche, A. M., Hotham, E. D., & Richmond, R. L. (2002). The general practitioner's role in AOD issues: Overcoming individual, professional and systemic barriers. *Drug and Alcohol Review*, 21(3), 223–230. <https://doi.org/10.1080/095952302100002679>
- Roche, A., & Nicholas, R. (2017). Workforce development: An important paradigm shift for the alcohol and other drugs sector. *Drugs*, 24(6), 443–454. <https://doi.org/10.1080/09687637.2016.1262823>
- Taleff, M. J. (2003). The state of addictions education programs: Results of a national cross-sectional survey. *Journal of Teaching in the Addictions*, 2(1), 59–66. [https://doi.org/10.1300/J188v02n01\\_05](https://doi.org/10.1300/J188v02n01_05)
- Taleff, M. J., & Swisher, J. D. (1997). The seven core functions of a master's degree level alcohol and other drug counselor. *Journal of Alcohol and Drug Education*, 42(3), 1.
- Thom, B., Duke, K., & Herring, R. (2017). Workforce development: Is there a paradigm shift? *Drugs: Education, Prevention and Policy*, 24(6), 427–429. <https://doi.org/10.1080/09687637.2017.1385725>
- Uchtenhagen, A., Stamm, R., Huber, J., & Vuille, R. (2008). A review of systems for continued education and training in the substance abuse field. *Substance Abuse*, 29(3), 95–102. <https://doi.org/10.1080/08897070802219263>
- United Nations. (2015). *International standards on drug use prevention*. Retrieved from United Nations [https://www.unodc.org/documents/prevention/UNODC\\_2013\\_2015\\_international\\_standards\\_on\\_drug\\_use\\_prevention\\_E.pdf](https://www.unodc.org/documents/prevention/UNODC_2013_2015_international_standards_on_drug_use_prevention_E.pdf)
- United Nations. (2018). *UNODC/WHO International Standards on Drug Use Prevention: Second updated edition*. Retrieved from United Nations <https://www.unodc.org/unodc/en/prevention/prevention-standards.html>
- Van Boekel, L. C., Brouwers, E. P., van Weeghel, J., & Garretsen, H. F. (2014). Healthcare professionals' regard towards working with patients with substance use disorders: comparison of primary care, general psychiatry and specialist addiction services. *Drug and Alcohol Dependence*, 134, 92–98. <https://doi.org/10.1016/j.drugalcdep.2013.09.012>
- Victorian Department of Health and Human Services. (2004). *The Victorian alcohol and other drugs workforce development strategy – Minimum qualification strategy*. Retrieved from <https://www2.health.vic.gov.au/Api/downloadmedia/%7B2E6B2A96-E372-4EF3-8BB6-F00020D0954B%7D>
- Victorian Department of Health and Human Services. (2017). *2016 alcohol and other drugs workforce study – Worker survey*. Retrieved from Melbourne <https://www2.health.vic.gov.au/about/publications/formsandtemplates/2016-alcohol-other-drugs-workforce-study-worker-survey>
- Voßemer, J., Gebel, M., Nizalova, O., & Nikolaieva, O. (2018). The effect of an early-career involuntary job loss on later life health in Europe. *Advances in Life Course Research*, 35, 69–76. [https://doi.org/10.1300/J188v03n02\\_06](https://doi.org/10.1300/J188v03n02_06)
- Whittinghill, D., Carroll, J. J., & Morgan, O. (2005). Curriculum standards for the education of professional substance abuse counselors. *Journal of Teaching in the Addictions*, 3(2), 63–76. [https://doi.org/10.1300/J188v03n02\\_06](https://doi.org/10.1300/J188v03n02_06)