

REVIEW ARTICLE

Absconson from forensic psychiatric institutions: a review of the literature

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Background: Absconding from mental health units is referred to as a patient leaving without permission and can have significant consequences for the patient, family, community, and institution. The varying definitions of absconson involve breaching security of an inpatient unit, accessing grounds or community without permission, gaining liberty during escorted leave or being absent for longer than permitted from authorized or trial leave. While considerable literature exists on absconson from acute psychiatric units, there is a paucity of literature specific to forensic absconsions, despite inherent differences between patients and systems. Forensic patients are offenders who are found unfit to stand trial, or not criminally responsible on account of mental disorder. The literature indicates the absconding rate within the forensic population is expected to be low, based on the fact that the level of security in forensic units is higher than general psychiatric units. Despite the rates being considered low, the outcomes of absconding in this population can potentially be serious, thus the exploration of factors surrounding these incidents is essential. **Purpose:** To review the literature regarding absconson from forensic psychiatric institutions. This review will identify potential risk factors and motivations of forensic patients that have absconded. **Methods:** Electronic database and hand searches were conducted to locate articles pertaining to absconding specific to forensic psychiatric institutions published from 1969-present. Search terms included "abscond", "escape", "AWOL", "runaway", "psychiatric inpatient", "forensic institution", & variants. All full-text articles meeting inclusion & exclusion criteria were appraised for qualitative themes, limitations, and assessed for risk of bias using appropriate CASP Checklists. The review is structured following the PRISMA checklist and framework. **Results:** A total of 19 articles meeting literature

review criteria were identified. The majority of the articles were of retrospective case-control design (n=12). Three systematic reviews were found on absconson that included analyses from both forensic and general psychiatric populations. Definitions for absconding were omitted or varied making comparisons between studies difficult. Much research compared demographic, static and dynamic factors. History of previous absconson, scores on validated risk-of-violence assessment tools, substance-use disorder, acute mental state, and socio-environmental factors were consistently noted as risk-factors. Four distinct motivations for absconding emerged: goal-directed, frustration/boredom, symptomatic, and accidental. Overall, the literature suggested forensic absconson was a rare event of short duration with low risk to the public and few re-offending incidents. **Conclusions:** There is a paucity of literature on forensic absconsions. A consistent definition of absconson and use of standardized reporting protocols across forensic programs would be beneficial in order to be able to compare data on absconding events. Also, prospective studies should be undertaken to better understand the motivations and dynamic risk factors of forensic patients who have absconded and would help inform a forensic absconson risk assessment protocol.

Key words

Abscond, escape, forensic, secure hospital, psychiatric inpatient, offender-patient

Acronyms

HCR-20- Historical Clinical Risk Management-20, LARA-Leave/Abscond Risk Assessment, PCL-R- Psychopathy Checklist-Revised, EMR- Electronic Medical Record

Introduction

Absconson of patients from forensic mental health units can have significant consequences for the patient, hospital, and greater community [1-11]. Absconson can be defined as an unauthorized leave of absence from mental health inpatient services. Within the literature, however there is no standard definition of

absconsion used. Definitions can include instances of breaching the security of an inpatient unit, accessing hospital grounds or the community without permission, fleeing from staff while on community outings, being absent for longer than permitted, or failure to return from an authorized or trial leave [1-6,8,9,11-14]. Regardless of the circumstances surrounding the event, the potential for serious outcomes exists.

Absconsion from forensic mental health units can compromise a patient's safety and result in suicide or serious self-harm [1,5,8,15] with the risk of suicide being elevated immediately upon return of the patient to the unit [2,8,16]. Substance and alcohol use are also commonly reported during absconding with over 50% of absconders in one study reporting use on leave [2,4,7-9,11,14]. There is risk of exposure to the environmental elements since many patients do not have a home to seek shelter [1,15]. Absconsions can lead to distrust in psychiatric services by families who expect the hospital to keep patients safe. The reputation of the forensic hospital and its processes can be put under scrutiny by a community expecting adequate management of patients who may pose a danger within a community or are at risk for violence [1-11,17]. In absconsions from forensic institutions, police are notified which may precipitate media attention, exacerbating both the situation and stigma [2,5,18,19].

Within forensic psychiatric institutions, patients are under much higher security due to potential risk for violence [1,13,17]. This level of security may decrease overall rates of absconsion, however also results in a lack of autonomy related to treatment, heightened perceived stigma, and isolation of patients from the hospital and community [1,13,20-22,24]. Lengthy durations of stay in hospital in comparison to non-forensic patients is a unique source of stress, making forensic rehabilitation and motivations for absconsion more complex [4,6,9,11,21-24].

However, for nearly all forensic patients some form of leave is a fundamental part of their rehabilitation [17,20,21,23]. Clinical

teams realize the risk of absconsion exists when granting this leave [23]. However, lack of evidence on absconsion specific to the forensic population, makes clinical decision-making and identifying patients at high risk of forensic absconding more difficult. The purpose of this literature review is to evaluate the state of literature in relation to absconsions from forensic mental health units. It will aim to identify risk factors and motivations highlighted in the literature that can help inform decision-making in granting leave.

Methods

Searches of electronic databases were conducted to locate articles pertaining to absconding specific to forensic mental health patients published from 1969-present. The following databases were searched: Ovid, MEDLINE, PsychINFO, CINAHL, PubMed and Web of Science. A hand search was also conducted of Google Scholar, the Web, and relevant publications' reference lists. The following search terms were used with variants in parentheses: "Abscond" (absconding, absconder, absconded), "Escape", "Elope", "AWOL", "AWOP", "Runaway" (at large), "Psychiatric Inpatient" (Patient, Resident, Absconder, Offender, Offender-Patient), "Forensic Institution" (Special Hospital, High-Security Psychiatric Hospital, Forensic Hospital/Ward, Secure Hospital). Included publications were in English. Initially, the search timeframe was set from 2007 to present with November 20th, 2018 being the last date searched. However, due to the low quantity of articles (n=10), the timeframe was adjusted to include relevant publications from 1969. The search excluded theses or other grey literature and only literature published in peer-reviewed journals was included. Full-text articles meeting criteria were appraised for qualitative themes, limitations, and assessed for bias using CASP Checklists [25]. The review was guided by the PRISMA checklist and Explanation and Elaboration document [26]. Figure 1 illustrates the different phases of the literature review.

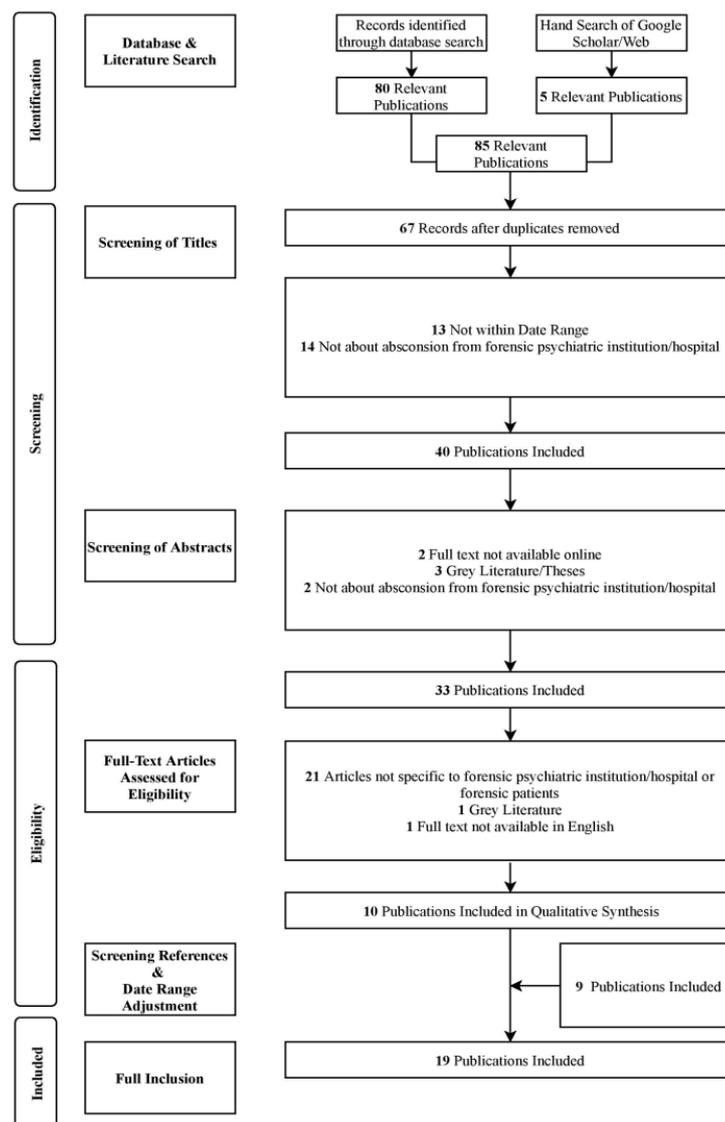


Figure 1. Literature Review Process

Results

A total of 19 full-text articles met the criteria for this literature review. The majority of the articles were published between 2009-2018 [4,7-14,23]. Eleven of the studies were conducted in the United Kingdom [2,3,5,-7,12-14,19,23,28], three in the United States [10,18,27], three in Canada [4,9,11], and two in Australia [1,8]. A summary of the characteristics and results of each study is included in Table 1. The majority (n=12) were of retrospective design [2-8,10,11,18,27,28]. Only one included a prospective cohort following forensic psychiatric patients over a two-year follow-up for absconding incidents [14]. Another included an A-B prospective study design evaluating the effectiveness of a risk-assessment tool [9].

Three systematic reviews were found on the subject of absconsion; all included articles from both forensic and general psychiatric institutions [1,12,13]. Remaining studies involved qualitative observation of clinician decision making, and a description of an absconsion protocol [19,23].

Definitions of Absconsion

There was no consistent definition of absconding used within the literature on forensic mental health units (Table 1).

Table 1. Study Characteristics (table formatted following Bowers et al., 1998 and according to Moher et al., 2009)

Study	Place	Study Design	Population	Comparison Group	Intervention	Absconding Definition	Absconding Rates	Outcomes Analyzed
Morrow et al. 1969	USA	Retrospective Case-Control	State maximum-security building for male psychiatric offenders 1956-1966; 40 patients who attempted to escape from building	Unselected security-building admissions over 5 years, and to 80 non-escapees	Chart Review	"Escape episode"	Not reported	Characteristics of escape behaviour, comparison of escapees/non-escapee groups on background characteristics. Composite scoring index developed
Cooke et al. 1978	USA	Retrospective Case-Control	Forensic Psychiatric Center; Elopement group (n=37); 30 patients with data available. Cross Validation sample (n=49); 34 with data available	Random sample 130 non-absconding controls from same population	Chart Review	"elope"; undefined	86/572 admissions over study period; 15%	MMPI profiles (Depressive & Paranoia Scales) compared between elopers and non-elopers; any statistically significant differences weighted into prediction tool
Huws et al. 1993	U.K.	Retrospective Case-Control	English Special Hospitals over 13-year period; 66 incidents involving 62 absconder-patients during study period. (n=32 from within hospital; n=30 while on trial leave)	Non-absconders during same period (n=4571) for within hospital & discharged patients for trial leave absconders	Chart Review	unauthorized absence from hospital, outside working party, rehabilitation or compassionate leave from hospital, or deliberate evasion of staff whilst outside hospital	"rare"; 36 over 13 years out of population of 4909; rate for absconsion from trial leave not reported	Predictors of absconding, planning, security measures of Special Hospitals, and the details of the absconsion outcome (offending & danger to the public)
Dolan et al. 1994	U.K.	Retrospective Case-Control	Escaped patients from regional medium-secure forensic unit over 7-year period; 27 patients; 31 escape episodes	Random sample 238 non-escape controls from same population	Chart Review	Escapes: one or more individuals who breached the security of the unit and subsequently attempted to abscond	3.5% incidence among those admitted	Frequency, characteristics of incident, escapee profile, and outcome of escapes; determining characteristics for future risk assessment
Gacono et al. 1997	USA	Retrospective Case-Control	Maximum security forensic hospital over 10-year period; 18 patients with escape history	18 non-escapee matched controls	Chart Review	"escaped"; undefined	Not Reported	PCL-R scores, psychotic diagnosis, neuroleptic medications, & index offenses compared

Study	Place	Study Design	Population	Comparison Group	Intervention	Absconding Definition	Absconding Rates	Outcomes Analyzed
Brook et al. 1999	U.K.	Retrospective Case-Control	Maximum Security English Special Hospital 1985-96; Absconders (n=36)	Random sample 150 non-absconding patients	Chart Review	Unauthorized absence from hospital, from an authorized excursion, or breach of physical security of the hospital	36 episodes across study period; rates per outing only available for last 4 years of study (0.5, 0.17, 0.13 and 0.17)	Absconder characteristics, outcome of episode, comparison between non- and absconder groups (demographics, clinical risk factors, previous absconding)
Moore 2000	U.K.	Retrospective Case-Control	Sample of absconders and escapees from 3 English high-security hospitals between 1989 and 1994; 43 incidents of unauthorized absence (30 absconsion, 12 escape, and 4 failure to return) by 45 patients	Absconsion: Total number of outings; Escape: number of hospital residencies per year	Chart Review	Any unauthorized absence from: the hospital, rehabilitation trip, an outside working party, leave of absence, trial leave	Not Reported	Characteristics of absconding & escape, risk patterns using multi-modal analysis, historical, cognitive, and emotional predictive factors; motivations categorized
Moore & Hammond 2000	U.K.	Retrospective Case Design	Patients of English Special Hospitals (Ashworth, Broadmoor, & Rampton) and those on trial leave 1989-1994; 44 known absconders during study time period	5,133 admission entries to three hospitals excluding absconders and those discharged during study time period	Chart Review	See Moore, 2000 [2]	Not Reported	35 predictor variables compared between absconding and non-absconding groups through series logistic regression analyses; predictive strength of variables and model evaluated
Nichols et al. 2007	U.K.	Qualitative Review of Absconding Pack Intervention; and case series analysis (n=2)	Two medium secure hospitals. Patients are predominantly mentally disordered offenders	One incident prior to implementation documented	Absconsion pack containing patient background details & risk assessment factors; one incident following its introduction	Vaguely "unauthorised patient absence from secure hospitals" including escapes, failure to return from leave, and absconsion	"rare"; not reported	Statistics on absconsion from secure hospitals, current state of social work policy, recommendations; development of an 'absconsion pack'

Study	Place	Study Design	Population	Comparison Group	Intervention	Absconding Definition	Absconding Rates	Outcomes Analyzed
Lyall et al. 2010	U.K.	Qualitative Non-Participant Observational	Data collected from observation of ward rounds of medium secure forensic unit over 15-month period; Leave discussed on 96 occasions; risk of absconding on 12	Content of 116 discussions of 18 patients analyzed	Naturalistic observation of weekly ward rounds from two clinical teams	'running away'; undefined	N/A	How leave decisions are reached by clinical teams: factors considered, nature of discussions, and two emerging themes when deciding on leave (risk vs humanity and issues of power and responsibility)
Stewart et al. 2011	U.K.	Systematic Review	English, peer-reviewed literature on absconding from acute mental health wards and forensic units, between 1960 and 2009. 75 empirical papers meeting criteria	Open-door wards & mixed wards effect on absconding	Locked- door wards effect on absconding	Patient being absent from the ward without official permission (AWOL); variations in the time period a patient could be absent before declared an absconder (1-72 hours)	Not Reported; Rate of absconsion increased as level of security decreased. Differences in services and the characteristics of patients (forensic vs general psychiatric) not controlled for.	Synthesizes literature on door-locking policy's effect on absconsion. Increased security negatively associated with absconsion but highly associated with negative outcomes, exploration of alternatives to door-locking
Hearn et al. 2012	U.K.	Review of the Literature	Papers relating to absconding risk assessment from medium and low secure mental health and forensic care units in the UK	Previous risk assessment methodologies, HCR-20, and current absconding interventions	Analysis of absconding risk factors	A patient who gains liberty during escorted leave of absence outside perimeter of the unit/ hospital by getting away from supervision of staff.	Not reported, noted lack of consistency across studies	Prevalence, characteristics, socio-environmental factors, and interventions for absconding, outlines the LARA
Mezey et al. 2015	U.K.	Retrospective Case-Control	Medium & low secure forensic psychiatric inpatient units of two NHS Trusts over 5 years; 54 patients responsible for 77 incidents (cases); 13 escape cases (12 patients)	64 absconding cases (42 patients)	Chart Review	Escape: breach of the secure perimeter of the hospital/unit; Abscond: taking unauthorised liberty outside perimeter, breaking away from staff or failure to return	Escapes: 0.04 per 1000 bed days Absconds: 0.26 per 1000 bed days; Total rate of unauthorised leave: 29 patients per 1000 admissions per year	Comparison of patient characteristics, risks, circumstances and outcomes of cases, and motives between escapee and absconder groups
Cullen et al. 2015	U.K.	Prospective Cohort	135 forensic psychiatric inpatients (medium & low secure wards) over 2-year follow-up; 27 patients responsible for 56 absconsions during study period	108 non-absconder patients	Incidents of Absconsion	Absent from hospital without permission (i.e., failure to return from leave, escape, and absconding whilst on escorted leave)	20% of population studied	Demographic, clinical, treatment-related, and offending/behavioural factors from EMRs & census of treatment teams used for predictive risk scale (low PPV)

Study	Place	Study Design	Population	Comparison Group	Intervention	Absconding Definition	Absconding Rates	Outcomes Analyzed
Wilkie et al. 2014	CAN	Retrospective Case-Control	Forensic patients within a large psychiatric hospital in Toronto (medium & minimum security); 57 patients responsible for at least one incident (n=102) from hospital within previous 24-months	57 matched non-absconder control group with no previous history of absconsion	Chart Review	Any unauthorized absence from hospital: breaching the security of inpatient unit, accessing hospital grounds/community without permission, or absent for longer than permitted	14.4% over two years	Characteristics of absconders; outcomes of event and motives; significant differences between of patients with and without absconding incidents used to identify factors predictive of absconding (HCR-20, PCL-R)
Simpson et al. 2015	CAN	A-B prospective design for Leave Application Form	Forensic program at a large urban psychiatric hospital in Toronto over 42-month study window; 86 patients responsible for 188 incidents of absconding	Compared and matched (on age, sex, and security level within the hospital) to non-absconder controls	Leave Application Form integrating HCR-20 risk indicators, nature & purpose of leave, risks & benefits of granting leave, and rehabilitative goals	See Wilke et al. 2014	Absconding rate decreased 33% (p < .05) Prior implementation: 17.8% During implementation: 13.8% Post-implementation: 12.0%	Rate, characteristics, motivations of absconding events prior to and following new policy; comparison between absconders and non-absconders during study period (HCR-20, length of stay, substance use)
Scott et al. 2017	AUS	Retrospective descriptive audit	High Security Inpatient Services (HSIS), Brisbane over 12-year study period; forensic and general psychiatric units; 27 AWOP incidents between 2003-2015 (14 patients)	Total Episodes of Day Leave	Chart Review	Critical incidents during leave: breaches of the conditions of leave (fleeing staff), failure to return from leave by the designated time or AWOP; criminal offending, harming others/self-harming on leave	1 in 1710 incidence of AWOPs relative to total day leave episodes across 12 years	Characteristics of critical incidents, outcomes of (harm, re-offense, returns), predictors (history of absconding)

Amongst studies that provided a definition of absconding, there were variations in time-periods a patient could be absent before being deemed an absconder [1,3,4,6,7,13]. In addition, most studies classified both failures to return from leave and escape as absconson [6,10]. One study differentiated between escape and absconson [7] and only one clearly differentiated between absconding, failure to return from leave, escape, and attempts [1,12,13]. Three studies did not include definitions at all [18,23,27].

Static Risk Factors

History of previous absconson or attempts was found to be significantly associated with future absconding incidents in many studies [2,4-9,14]. Those who abscond are likely to be young, Caucasian, male, and diagnosed with a psychotic disorder, compared to non-absconders [1,5,13,18]. A history of alcoholism, unemployment, and being an older sibling was characteristic of some absconders [10]. Some studies looked at scores on commonly used violence risk assessment tools. Higher risk scores on the HCR-20 were noted in three studies as being a good predictor of absconding behaviour [4,9,11]. Higher PCL-R scores of absconders and escapes were also associated with a higher risk of absconding [4,11,27].

Dynamic Risk Factors

Absconding was also found to be significantly associated with dynamic factors such as patients' acute mental state or recent stressful events such as death/loss or transitions in care (usually from lower to higher security) [4,11,14,25]. Furthermore, in the year prior to absconding, absconders were more likely to be involved in property damage, verbal aggression, self-harm, substance abuse and to be non-compliant with treatment [3-5,9]. Absconders were more likely to have a comorbid substance use disorder and problematic personality traits/disorder than personality disorder alone [9,11].

Motivations to Abscond

Only four studies to date have included explicit analysis of specific motivational factors [4,6,9,11]. Two commented on

particular subgroups of absconders: opportunity makers and opportunity takers [2,4]. Opportunity takers make up the majority of absconders, meaning those who make use of circumstances or chance events where impulsivity, fear of transfer, revoking of parole, amount of money in possession, and difficulties in accepting detention are associated with increased risk [2,4]. Opportunity makers, by contrast, engineer situations in which they can abscond, and absconson was often goal-oriented and planned, especially with those from higher security wards [2,4-6]. Researchers identified four distinct motivations of absconding behavior: goal-directed, frustration/boredom, symptomatic/disorganized, and accidental [4,9, 11]. Frustration/boredom and goal-directed behaviours account for the vast majority of incidents [4,11]. These patients often exhibited higher HCR-20 scores, difficult behaviors, absconding ideation and voicing of discontent to staff, and upcoming or recently unfavourable Review Board hearings in the weeks prior to absconding [4,9,11]. When individuals returned, it was at their leisure, they minimized the situation, externalized blame, or defended behavior [4]. Goal-directed individuals are those with a desire to abscond in order to complete a specific goal which they were likely to have voiced to staff [4,9]. Symptomatic/disorganized absconders appeared to act in response to auditory hallucinations or delusional beliefs [4,9,11]. Active symptoms of illness, notable instability, medication changes, missed medication and stating of psychotic beliefs with absconding ideation preceded incidents [4,9]. Accidental absconders were those who lost track of time or met situations beyond their control resulting in a report of absconson [4,9,11].

Characteristics of Absconding Incidents

Incidents of absconding from secure hospitals were found to be rare and acts of violence during absconson were infrequent [1-4,6,8,11,12]. Incidents occurring in low-security units appeared to be higher compared to medium or maximum-security units [3,5,7,13]. Most absconding incidents occurred from individual or community trips outside the hospital [3-5,8, 13]. The number

of escorts had little impact on reducing the risk of absconding [2,5,14]. In most cases, only one patient absconded, but there are several reports of patients absconding together [2-5,7].

Timing of Absconding

Some studies observed that most incidents occurred during warm weather from May to September and in holiday months such as December when patients wished to be close to loved ones [4,10]. One study noted absconsion took place primarily during the afternoon/evening, weekends or times with lower staff level [6]. Two studies indicated that absconsions tended to occur in clusters suggesting a “copycat” or “contagion” effect during times of ward stress [5,6]. There is disagreement over whether length of stay is related to absconsion risk. Three studies confirmed significant time lapses between the date of admission and first absconsion episode [4,9,28]. One study noted that the longer a patient has been known to staff and not absconded; the less likely staff may be to expect absconsion, increasing the risk [28]. This is inconsistent with previous research, which hypothesized no relationship, or that risk of absconsion is highest earlier in inpatient stay when patients are unsettled or resentful [7,10,28]. Because of conflicting data about timings of absconsion, focusing instead on motivations behind observed trends may be more useful in assessing risk than the static factor of length of stay [4,6,7,9,10,14,28].

Outcomes of Absconsion

Forensic absconsion is rare, with locked doors and high secure units correlated to the lowest rates, but with overall rates increasing [1-8]. Studies focused on the duration of absconding events and circumstances of the return, (see Table 1) and in most cases the duration was short,

the majority of patients were returned within 24 hours, and all absconders were eventually found [1-6,8,11,12]. A recent study noted the median absconding duration of only 4 hours [11], and one noted most patients were caught within minutes by hospital staff [5]. Between suburban and urban hospital settings, it may be easier for absconders to evade detection and gain access to the wider community in a metropolitan city [4,11,26]. Police were involved in the patients’ recapture usually without incident, and in some cases, the patients returned voluntarily, although this was less likely in escapees [5,7]. The ultimate level of public endangerment posed by those who absconded is low, with few patients reoffending during absence [2-4]. An Ontario forensic institution found that despite higher HRC-20 scores and substance-use disorders among the 57 patients responsible for 102 absconsions over 2 years, only one incident of minor violence and very few other illegal behaviours occurred [4]. Three English maximum-security hospitals had very low rates of absconding from thousands of rehabilitation outings over a five-year period, all with minimal risk to the public [2]. Huws et al., reported 11 cases of offending from 36 AWOPs over 13 years, and with only two serious offences (rape and manslaughter) [3]. Several studies noted negative outcomes for absconders: self-harm during leave, elevated risk of suicide upon return, and substance abuse during leave [1-4,8,15]. Beyond public safety risks, re-offense, and patient harm, other outcomes included slowed patient rehabilitation, the reputational risk to the hospital, affects on the legal status of the patient, and perpetuation of stigma towards patients [1-11,18].

C. Completed CASP cohort risk of bias checklist tool

	Did the study address a clear issue?	Cohort recruited in acceptable way?	Exposure accurately measured minimising bias?	Outcome accurately measured minimising bias?	Have the authors identified all important confounding factors?	Have they taken account of confounders in the design /analysis?	Was the follow up complete and long enough?	Do you believe results?	Can the results be applied to the local population?	Do the results of this study fit with available evidence?	Are there implications of this study for practice?
Cullen et al. 2015	Y	Y	Y	Y	Y	Y	Y	Can't Tell	Can't Tell	Y	Y
Simpson et al. 2015	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

D. Completed CASP systematic review risk of bias checklist tool

	Did the review address a clearly focused question?	Did the authors look for the right type of papers?	Do you think all the important, relevant studies were included?	Did the review's authors do enough to assess quality of the included studies?	If the results of the review have been combined, was it reasonable to do so?	Can the results be applied to the local population?	Were all important outcomes considered?	Are the benefits worth the harms and costs?
Cochrane		Y	Can't Tell	Y	N	Can't Tell	Y	Y
Hearn et al. 2012	Y	Y	Can't Tell	Y	Y	Can't Tell	Y	Y
Stewart et al. 2010	Y	Y	Can't Tell	Y	Y	Y	Y	Y

Discussion

Within this review, the use of an a priori protocol, defined research question, objectives, and scope reduces bias in selection [29]. The major limitation in this review was the scarcity of data on absconson within the forensic population, prompting date range adjustment to include as many relevant studies as possible. Inconsistent definitions of absconson made it difficult to draw comparisons between studies, as well as inconsistent reporting of rates, comparison groups, and settings (see Table 1). CASP is seen generally seen as an appropriate tool for qualitative risk of bias assessment, however, it appears to be inferior to others in terms of sensitivity [25,30]. Studies were all found to be of qualitative value to include in a review of the literature, individual article limitations were examined, and all were found to be of low risk of bias as per CASP guidelines (see Table 4 A-D).

Despite its rarity, cases where patients were gone for extended periods, used hospital and police resources, did commit offenses, or had negative outcomes themselves reaffirms palpable risks and consequences of absconson [1-6,8,12,19]. These outcomes derail rehabilitative goals and demonstrate the negative consequences for absconders as well [1-4,8,9, 11,14,15]. The absence of an overwhelming number of adverse incidents may help relieve the public's beliefs about safety concerns [2,8,9,18]. To reduce negative outcomes of absconson an "absconding pack" given to police may improve response time and streamline the recovery process [12,19]. While primarily proof of concept, this study encourages increased standardization in forensic patient data collection [19].

The deficiency in volume and quality of literature on the topic of absconson from forensic institutions may reflect the rarity of such incidences, resulting in smaller sample sizes and difficulties in producing comparisons. The small sample sizes or discrepancy between sizes of control and absconding groups in individual studies affects the significance of results measured in case-control and cohort studies and the

ability to assess risk factors [5,28]. Attempts were made to minimize confounding factors and bias in some studies by having a control group, matched comparison group of non-absconders, or other comparison group, though appropriate matching criteria were difficult to discern and inconsistent across studies [2,3,5-8,10,11,18, 27,28]. The past 10 years have seen an increase in forensic absconson literature, possibly attributable to negative media responses to increasing rates or recent high profile absconsions prompting interest in better risk management and increased pressure for understanding of outcome risks and motivations as mentioned in some studies [2-4].

Most research conducted was retrospective in nature. Due to incomplete EMRs and biased clinician recall, many retrospective studies were operating with incomplete data and particularly limited in exploring dynamic risks [2,3,5,7]. Selection bias was evident when outcomes were not available for several absconders, or for attempts, especially considering history of absconding being a stable predictor [2,4-9,14,18]. Limitations of retrospective analysis based on EMRs is further compounded by the fact that there exists no evidence of systematic documentation for absconding episodes across forensic institutions over time. While retrospective studies attempted to discern absconder profiles, characteristics, and motivations many noted these were based off incomplete records [2,3,5-8,10,11,18, 27,28]. Refinement of record-keeping of incidents may assist in the better extrapolation of risk factors [5,19]. A standard debriefing protocol for patients who have been returned could further inform motivations and strengthen therapeutic relationships [4,5,9].

Given that risks and factors have been established from retrospective studies, more prospective studies should be undertaken. These should incorporate a standardized definition of absconding from forensic institutions and conduct in-depth analysis of motives and characteristics on

larger forensic sample sizes to replicate the significance and clinical utility of risk factors previously identified in retrospective literature.

Additionally, literature reviews pooled both forensic and general psychiatric populations in their analyses [1,12,13]. It is imperative to study forensic populations separately; there are differences between forensic patients and general psychiatric patients and the systems through which they receive rehabilitative treatment, that impacts how we analyze absconsion from these settings and development of appropriate risk tools [16,23,29]. General psychiatric patients may be admitted voluntarily or involuntarily depending on clinical presentation, while criminal history and serious mental illness are inherent for admittance to a forensic psychiatric facility [12,23-25,27]. The forensic patient also experiences the unique stresses associated with the forensic system, such as decreased autonomy, increased length of stay, Review Board hearings, revocation of liberty, and heightened security and stigma due to their criminal offenses [11,22-24,27]. Ultimately these clear differences between the two settings that warrant separate investigations into factors associated with absconsion from these two distinct populations, and a review of forensic-specific literature is warranted [1,12,13].

One of the biggest gaps is in risk assessment. At present only one qualitative study has contributed to the understanding of clinician decision making in granting forensic leave however the researcher's own influence needed to be reviewed for observation bias and reporting bias being the sole observer [23]. These leave decisions tend to be unstructured, with absconding risk and current mental state rarely referenced explicitly, and time constraints predisposing conversations to brevity [23]. Despite attempts, overall, there still exists no "thorough, well designed, rigorously carried-out trials of interventions to reduce absconding" valid for forensic populations [9,12,15]. Two studies that were analyzed explored tools incorporating validated and widely used violence risk and psychopathy assessment scales such as

the HCR-20 and PCL-R that showed utility in predicting absconsion, so further analysis of these scales' absconsion predictivity would be valuable [4,9,12]. The LARA is based on a review of violent risk assessment and absconsion literature, but the tool has not yet been tested for validity/reliability and is not specific to forensic settings [12]. The LARA could be refined for forensic use, although it would need to be tested prospectively [12]. Prospective analysis of an empirically-derived Leave Application Form to assist clinical teams in leave decisions showed a 33% decrease in absconding following implementation in one population [4,9]. Future cross-referencing of this form's validity in different settings would aid in confirming its reliability and shows promise for evolving into a standardized forensic tool [9]. In addition to EMR review, interviewing patients about past absconsions to further discern motivational risks to be incorporated into a tool would be valuable [9,12]. Ultimately literature is starting to emerge but any proposed risk assessment tools are in very early stages.

Statistical risk prediction of absconsion is inherently problematic due to the low volume of forensic absconding events, and risk assessment based on static and demographic factors may not be appropriate [12,28]. While compared in nearly all retrospective chart reviews, demographic factors may be time and context-specific, or the offender patient population at one institution may be skewed depending on the type of surrounding community from which patients originate [12,28]. History of absconsion, recent PCL-R, and HCR-20 remaining steadily predictive across studies may be related to consistent motivations [1,4,6,9,11,27]. Clinical interventions may affect observed findings for factors such as definite psychopathy and record of physical violence being negatively associated with absconsion, as clinical teams may impose additional restrictions on those who have high-risk diagnoses or violent behaviour [13,14]. These patients may thus present as lower risk since they have fewer opportunities to abscond, rather than these

characteristics actually representing low-risk.

Retrospective studies have thoroughly established static factors, and several acknowledge the potential weight of motivational factors, yet very little has been done to actually evaluate motivational factors as this data is difficult to obtain retrospectively [4,11,12,14,25]. Recent stressful life events and clinical events should be carefully monitored in patients in the context of their relationship to potential motivators since they may increase frustration, be indicative of boredom, precede goal-oriented behaviour, or aggravate symptoms of mental illness prompting accidental or symptomatic absconson [3-5,9,11,12,14, 25,27]. Clinicians acknowledge the time spent without leave on a ward is frustrating and contributes to a negative rehabilitative environment, boredom, and despair for patients facing long hospitalizations alongside the revocation of their autonomy compared to other psychiatric settings [1,4,6,7,9,11]. Substance use is unsurprisingly a predominant subtype of goal-directed motivation [4,7]. Future prospective analysis should also consider incorporating patient and staff interviews alongside medical record review following absconson to better discern patient motives.

Behaviours that are strong predictors for absconson in forensic settings could be potentially targeted with appropriate preventative interventions [4,7]. For instance, if substance abuse is both a motivator and risk factor for absconson, an inpatient program for patients targeting substance use disorders could prove effective [4,7]. Although the most straight forward method of reducing absconding would seem to be to increase hospital wide

security, locking ward doors and reducing leave, such measures do not stop absconding altogether and need to be balanced against potential negative consequences such as a volatile ward environment, depression associated with lack of freedom, and negative acute mental states [4,11,13,14,25].

Finally, several studies suggested ensuring adequate staffing levels and relational security, increasing positive relationships with the clinical team, and improving the education of staff themselves on risks and precipitators to absconson in order to better detect their presence, would aid in creating a cohesive, transparent, rehabilitative environment for patients [4,6,9,23].

Conclusion

Ultimately, there is a deficit in forensic-setting literature and inconsistency in many areas of interest on absconson. While a rare event of ultimately low risk to the public, there is a need to develop a consistent definition of absconson and use standardized reporting for incidents and outcomes across forensic settings. Prospective studies with patient interviews centered on absconder motivations and acute mental state should be undertaken so as to rely less on static risk factors and retrospective data. Development of a validated forensic absconson risk assessment tool based on evidence, and preventative measures targeting motivations will aid in reducing risk.

Conflict of Interest: none

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