

Risk assessment made easy – The Bröset Violence Checklist

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Bröset Violence Checklist (BVC) Almvik & Woods

- What is it and how does it work?
 - A short term (24h) violence risk assessment tool.
 - Assessment is made three times daily by an assigned nurse (once on each shift).
 - Six patient behaviours are assessed and rated as present or not present.

Six patient behaviours

- Confusion
- Irritability
- Boisterous
- Verbally threatening
- Physically threatening
- Attacks objects

Procedure

| MONDAY (date) | Day (10-12hrs) | Evening (3-5 hrs) | Night (9.30-11.30 hrs) |
|------------------------|--------------------------|-----------------------------|-------------------------------------|
| Confusion | 1 | 1 | 0 |
| Irritability | 0 | 0 | 0 |
| Boisterous | 1 | 0 | 0 |
| Verbally threatening | 0 | 0 | 0 |
| Physically threatening | 0 | 0 | 0 |
| Attacks objects | 1 | 0 | 0 |
| SUM | 3 | 1 | 0 |
| Signature | | | |

Risk levels (sum)

- 0 = low risk
 - 1-2 = medium risk
 - >2 = high risk
-
- The highest score during the past 24 hrs represents the risk level.

What is the point?

- Early preventive interventions.
 - The next shift can expect on-going preventive interventions for patients with BVC sums of >2 .

Prediction capacity

- Sensitivity: 64 % (true positive rate)
- Specificity: 92 % (true negative rate)
- Kappa: 0.44

Almvik et al 2000, Abderhalden et al 2004

Clinical experiences of the BVC on a PICU in Stockholm.

- 10 beds.
- Severe behavioural problems, all diagnoses.
- Staff/patient ratio = 2,3.
- Mean stay 11.5 days (median 5).
- 90% involuntarily admitted.

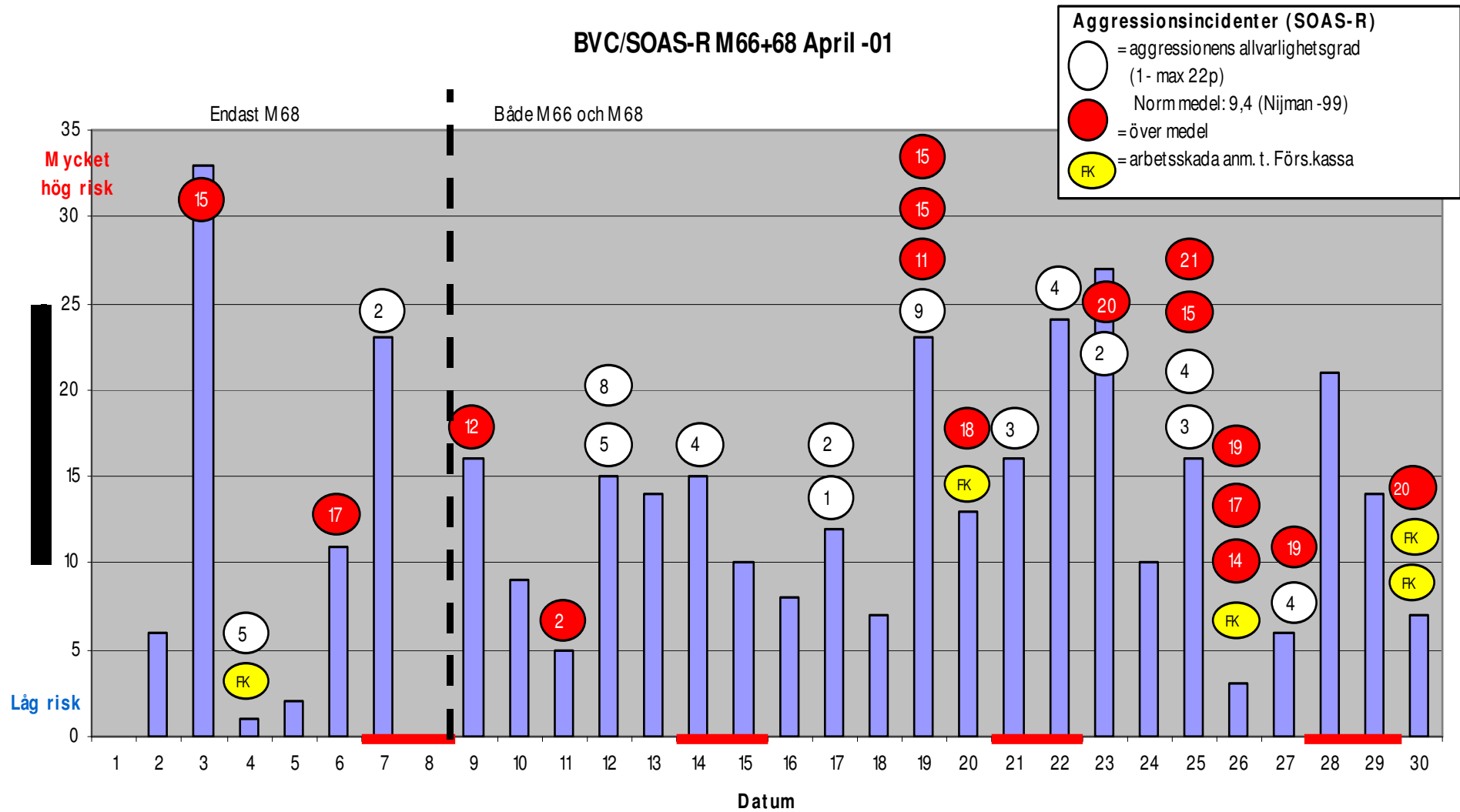


Nurse on the participating PICU

Clinical experiences...

- Really pushes you to think "early prevention".
- Should we use the BVC on all patients during their whole stay?
- Can the BVC help us see patterns of individual patient behaviour?
- Can it show the "aggression temperature" on the ward in general?

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The BVC as a risk factor (?)

- Over-reliance (the risk of false positives and false negatives are forgotten).
- Interpretation of BVC sum too rigid.
- Based only on patient behaviour – not why.
- BVC should only be *one* part of a global risk assessment.

BVC – Bröset Violence Checklist

| Måndag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

| Tisdag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

| Onsdag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

| Torsdag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

| Fredag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

| Lördag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

| Söndag / | Dag | Kväll | Natt |
|--------------------|-----|-------|------|
| Förvirrad | | | |
| Retlig | | | |
| Bullrig | | | |
| Verbalt hotfull | | | |
| Fysiskt hotfull | | | |
| Attackerar föremål | | | |
| Summa | | | |
| Signatur | | | |

Frånvaro av symptom/beteende ger 0 poäng.
 Förändring i, eller förekomst av beteende ger 1 poäng
 (t ex är pat vanligtvis förvirrad ger detta 0 poäng, men ökar förvirringen ges 1 poäng).
 Totalpoäng (Summa) är summan av vertikal kolumn.
Bedömning:
0 = ingen eller liten risk för våld
1-2 = måttlig risk för våld, förebyggande åtg bör vidtas
> 2 = hög risk för våld. Förebyggande åtg bör vidtas och man bör planera för hur ett eventuellt utbrott skall hanteras

Evaluation of the BVC on the PICU

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Nurses' short-term prediction of violence in acute psychiatric intensive care

Björkdahl A, Olsson D, Palmstierna T. Nurses' short-term prediction of violence in acute psychiatric intensive care. *Acta Psychiatr Scand* 2006; 113: 224-229. © 2005 Blackwell Munksgaard.

Objective: To evaluate the short-term predictive capacity of the Bruset Violence Checklist (BVC) when used by nurses in a psychiatric intensive care unit.

Method: Seventy-three patients were assessed according to the BVC three times daily. Violent incidents were recorded with the Staff Observation Aggression Scale, revised version. An extended Cox proportional hazards model with multiple events and time-dependent covariates was estimated to evaluate how the highest BVC sum of the last 24 h and its separate items affect the risk for severe violence within the next 24 h.

Results: With a BVC sum of one or more, hazard for severe violence was six times higher than if the sum was zero. Four of the six separate items significantly increased the risk for severe violence with hazard ratios between 3.0 and 6.3.

Conclusion: Risk for in-patient violence in a short-term perspective can to a high degree be predicted by nurses using the BVC.

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Key words: aggression, violence, risk assessment, psychiatry, psychiatric nursing, risk management, in-patient

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Significant outcomes

- Short-term risk for severe in-patient violence was to a high degree accurately predicted by nurses using the Bruset Violence Checklist (BVC).
- A positive scoring on any item of the BVC resulted in a six-fold increase of risk for severe violence.
- A negative scoring on all items of the BVC correctly predicted no risk for severe violence in 99.2% of all assessments.

Limitations

- The instruction to nurses to use violence prevention measures at predefined scoring levels could have interfered with the evaluation of the predictive capacity of the BVC.
- The low number of severe violent incidents limited the possibility to analyse the influence of other relevant risk factors for violence.

Introduction

Violence is a complex human behaviour that has been developed through evolution to enhance the individual's and group's safety and survival (1). Violent behaviour is caused by a multitude of factors and in today's society violence is often

regarded as unacceptable behaviour. In psychiatric care there has always been a need to consider and manage violence from patients directed towards others (2). To prevent harm to others, coercive measures such as restraint or seclusion are sometimes taken which patients often describe as a traumatic experience (3). In Sweden as in many

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- Three month period.
- 73 patients.
- 997 BVC ratings.
- Specificity = 99%.
- BVC sum of 1 or more = six-fold risk increase.

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