Attitudes and behaviors of hospital pharmacy staff toward near misses:

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Objectives

- At the end of this presentation, participants will be able to:
  - Define a near miss
  - Describe the experience of Manitoba hospital pharmacy staff with near misses and reporting them
    - Does it happen frequently?
    - Do pharmacists and technicians feel differently about near misses and their reporting?
  - Reflect upon ways to improve near miss reporting within a pharmacy workplace setting

Introduction

- Near miss
  - “An event that could have resulted in unwanted consequences, but did not because either by chance or through timely intervention the event did not reach the patient”[1]
- Similar underlying failure processes as errors

Literature Review

- Near misses underreported
- Attitudes and behaviours towards *error* reporting has been evaluated in healthcare
- Factors influencing near miss reporting
  - "blame and shame" culture
  - too trivial to report
  - uncertainty in what is reportable
  - time constraints
  - reporting does not lead to change

Barach P 2005, Garbutt J 2007, Schectman JM 2006, Van der Schaaf TW 2002, Kalisch BJ 2006, Fischer MA 2006, Schmidt CD 2003, Kingston MJ 2004, Clarke S 1998, Coyle YM 2005

Ideal safety culture within pharmacy?

Where we are…

- Pathologic culture
  - Self protection
  - No reason to disclose errors or near misses – poses threat to reputation of store or staff
  - No learning opportunities
  - No system changes, only individual changes

Where we should be…

- Generative culture
  - Errors are inevitable
  - Mistakes are learning opportunities
  - Knowledge obtained from error reporting is shared among pharmacies to increase overall quality across the health care system

Qual Saf Health Care 2005;14:417-21

Goal is to move away from blame and shame

- Who did it? ……What allowed it?
- Punishment……Thank you for reporting!
- Errors are rare……Errors are everywhere!

Introduction

- Near misses are sometimes included as a subcategory of errors in studies that evaluate errors
    - Little investigation has examined hospital pharmacy staff

- WRHA – non-punitive, paper based error reporting system for any type of error or near miss

- Purpose – to develop and validate a survey to capture attitudes, behaviours and current reporting practices of pharmacy staff towards near misses

Methods

- Survey questions developed from literature
  - Field tested
- Focus groups and interviews – same domains

- Sample
  - Pharmacists and technicians at the “inpatients” pharmacy at a tertiary care hospital (medicine, surgery, women’s)
  - Survey – all staff via workplace email - Web based survey
  - Qualitative – purposeful sampling
    - » Advertising via email, posters
    - » Willing and available

Methods

- Survey
  - Descriptive (Surveymonkey®, Excel®)
  - Reliability – factor analysis (SAS®)
  - Validity – comparison of survey response to qualitative data
- Qualitative
  - Semi-structured, open ended questions
  - Two investigators facilitated
  - Data transcribed (projector for focus groups)
  - Transcripts sent to participants
  - Both investigators used qualitative description[1] to determine themes, final themes reached through consensus
- Informed consent to participate

1. Res Nurs Health. 2000;23:334-40

Results

- Participants

  Survey

  - 36/55 responded (65.5%)
  - 20 (55%) pharmacists, 16 (45%) technicians

  Qualitative data

  - 11 participants (7 focus groups, 4 interviews)
  - 6 pharmacists, 5 technicians

Results

- Knowledge
  - 67% had experienced a near miss within 3 months
  - 10% reported a near miss with an occurrence reporting form
  - 19% had ever reported a near miss with the form

- Internal consistency reliability
  - Behaviour scale
    - All 11 items were retained (cronbach's 0.88)
  - Attitudes scale
    - 23 of 42 items retained (cronbach's 0.91)

Themes

Process changes can and do result from near misses	“tall man lettering, separate drugs, for example to separate sodium from calcium polystyrene sulfonate.”
Responsibility and accountability for my work and near misses	“I think the incident report form gets hair up on people’s backs. It really isn’t an incident, it’s a near miss.”
Minimizing – the error has been corrected, let’s move on!	“If we document every near miss that occurs, that’s a lot of paperwork.”
Need for education	“Are [pharmacy staff] taught to fill out those forms? I think they are just taught to deal with the situation and move on.”
Attributes of an ideal system	a simpler, more user-friendly, efficient form that was internal to the pharmacy department would encourage more frequent reporting

Conclusion

- We developed a reliable and valid survey to evaluate pharmacy staff attitudes and behaviours towards near misses

- Limitations
  - Responder bias
  - Lack of voice recording
  - Limited sample size

- Future work
  - Larger sample in Manitoba

Introduction

- We studied attitudes and behaviours of Manitoba hospital pharmacists and technicians toward near misses and near miss reporting.

Methods

- A web based survey of all pharmacy staff (excluding managers and students) at Manitoba hospitals with admitted patients was conducted for 4 weeks in 2009.

- Survey respondents were asked about experience with and attitudes and behaviours toward near misses with a previously validated survey.

Methods

- Internal consistency reliability for survey scales was determined using factor analysis and Cronbach's alpha.
- Differences between pharmacists and technicians were compared with Fisher's Exact tests for categorical data and t tests for survey scales.
- Data were collected with Surveymonkey® and analysis was conducted in SAS®

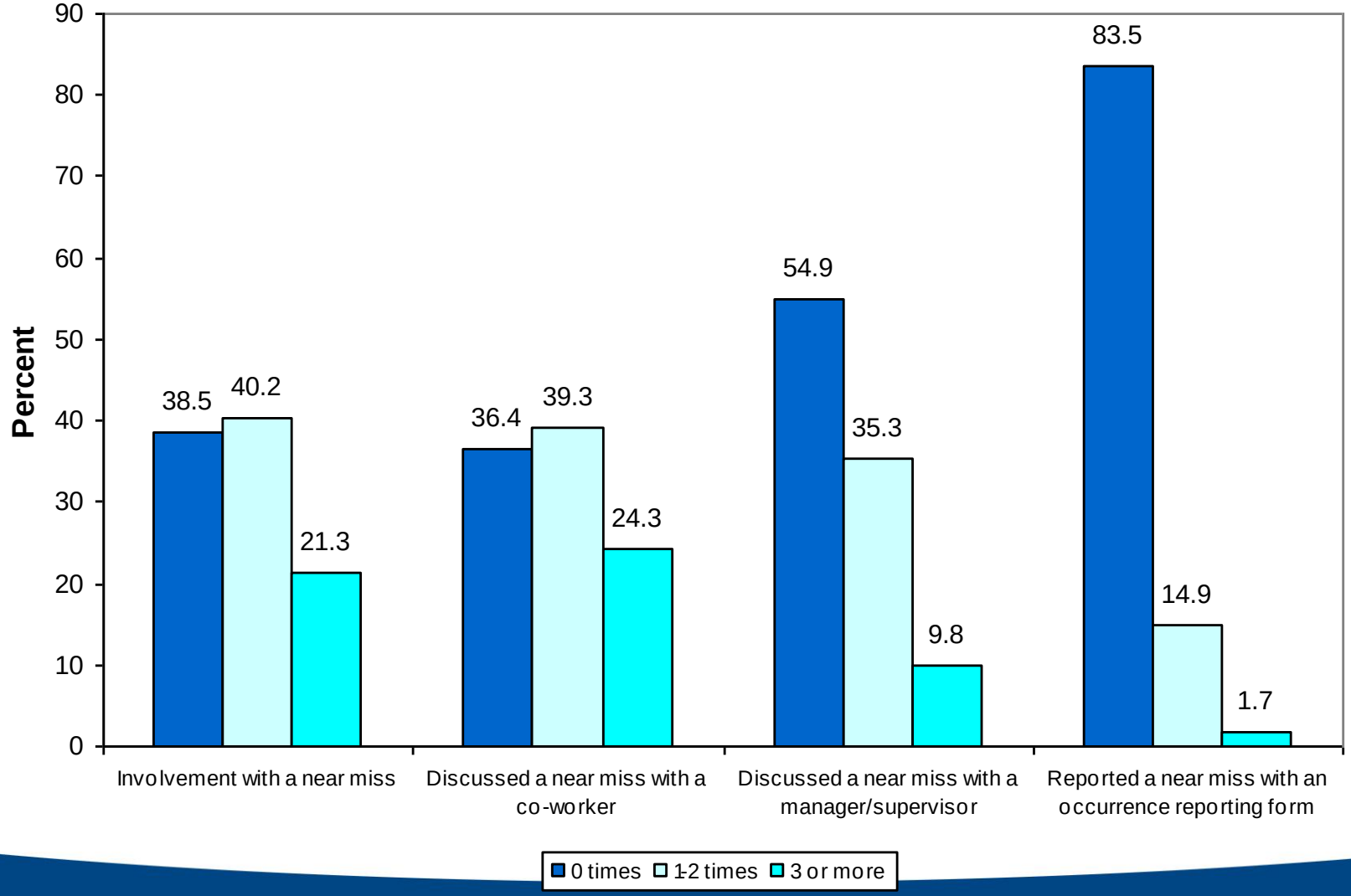
Results

- Of 37 hospitals, 1 large tertiary care centre declined to participate.
- Of approximately 500 pharmacy staff, 122 (25%) responded (Table 1).
- The majority (62% overall; technicians 48% vs. pharmacists 73% $p<0.008$) had experienced a near miss in the past 3 months (Figure 1).
- Only 27% of respondents had ever reported a near miss with an occurrence reporting form.

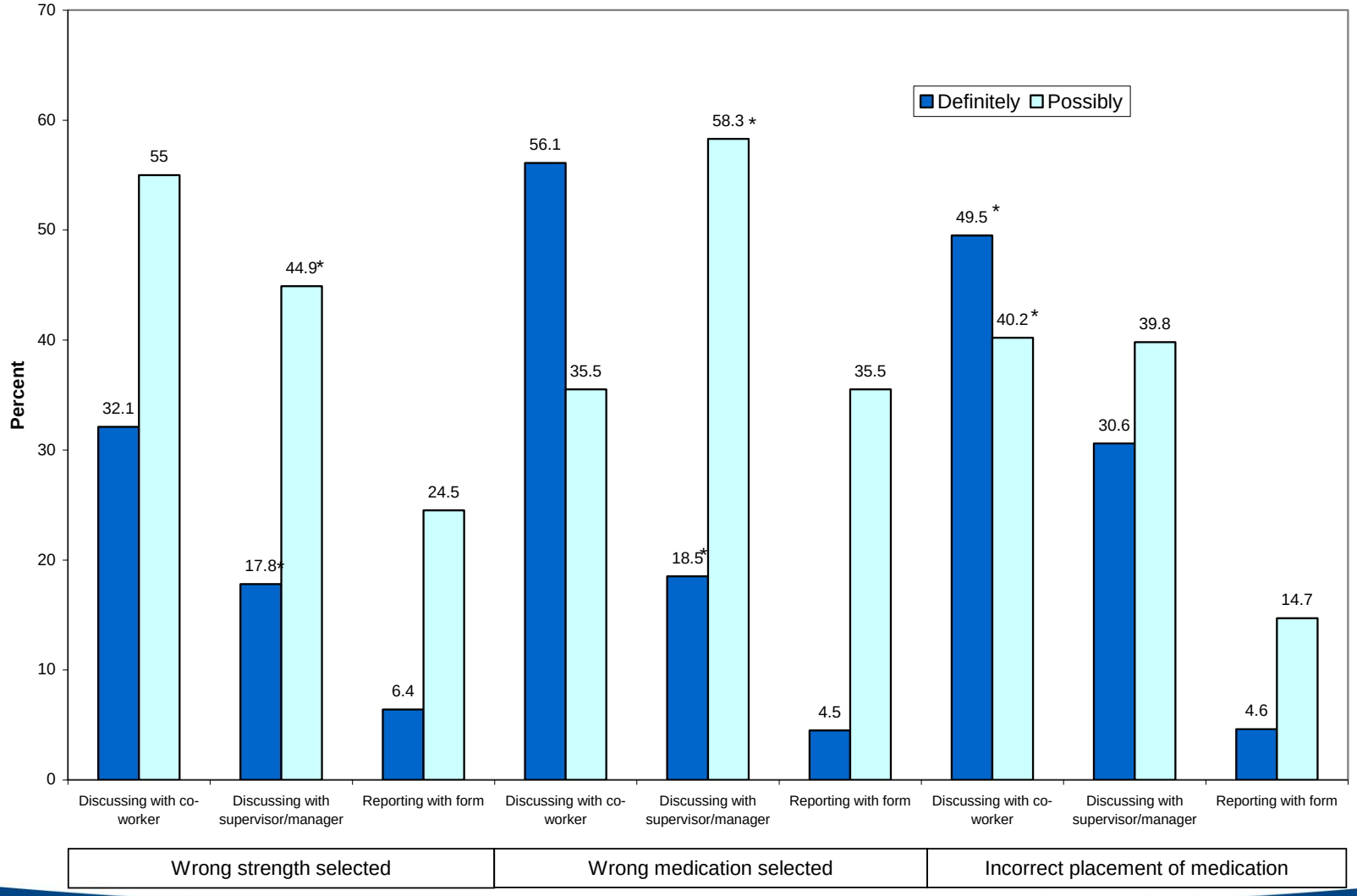
Demographic characteristics

Characteristic	n (%)
Job title	
•Pharmacist	66 (54.1)
•Technician	56 (45.9)
Length of time in current position	
•Less than two years	18 (14.8)
•Two to seven years	38 (31.1)
•Greater than seven years	66 (54.1)
Type of employment	
•Full time	94 (77.7)
•Part time	27 (22.3)
Type of shifts	
•Days only	66 (54.5)
•Rotation (evenings and days)	51 (45.4)
Practice location	
•Urban (Winnipeg)	90 (73.8)
•Rural (non-Winnipeg)	32 (26.2)

Experience with near misses



Experience with near misses



Attitudes towards near misses

Statement	Strongly agree / Agree N (%)
Helping to improve patient safety is my responsibility as a pharmacy staff member.	97 (95.1)
Medication errors are a serious problem in health care.	95 (93.1)
Understanding why near misses happen can help to prevent medication errors from happening.	95 (94.1)
I could learn from near misses that occur at other hospitals or pharmacy sites.	90 (88.2)
Others can learn from my near misses.	89 (87.3)
Near misses do not impact patient safety procedures because patients are not harmed.	6 (5.9)
Near misses do not teach us as much about improving patient safety as medication errors do.	8 (7.9)
I can improve patient safety by telling others about near misses.	78 (78.2)
Near misses tell us as much about how an error is prevented as they do about how an error is caused.	82 (82.0)

Attitudes towards near misses

Telling others about near misses is a waste of my time because nothing would change despite my efforts.	5 (5.0)
Telling others about near misses is as important as telling others about medication errors.	74 (73.3)
Pharmacy staff members should tell others about near misses.	78 (77.2)
I would feel uncomfortable talking about a near miss with a co-worker.	11 (10.8)
Telling others about near misses leads to system changes that improve patient safety.	72 (70.6)
I would feel uncomfortable talking about a near miss with my supervisor/manager.	23 (23.0)
If I tell others about a near miss, they will think I'm not good at my job.	13 (12.7)
Other pharmacy staff members don't talk about near misses, so I don't either.	9 (8.8)
In my pharmacy department, system changes to improve patient safety occur after near misses are discussed with others.	53 (52.5)
If I am involved in a near miss, it is my fault.	31 (30.7)

Discussion

- Similar near miss behaviors and attitudes between hospital pharmacists and technicians.
- Hospital pharmacy staff feel that near misses are important and useful learning tools.
- They experience numerous near misses daily, but generally only discuss with co-workers.
- Some staff feel individual responsibility for near misses

Discussion

- Pharmacy staff appreciate need to learn from near misses to improve pharmacy processes
- Reasons for non-reporting
  - Workload, paperwork
  - Feelings of personal responsibility
  - Lack of understanding of how studying near misses can improve patient care
- Evolution – informal discussion with peer

Discussion

- Education required
  - Near miss definition
  - Non-punitive nature of reporting
  - Benefits of reporting and discussing
- Pharmacy staff desire feedback about process changes made as a result of near miss reporting
- Efforts to create a simple, anonymous system

Limitations

- Responder bias
  - Technicians > pharmacists
    - Hard copies of surveys available
    - rural and urban, nearly 50% technician respondents, suggesting that both populations were adequately represented

What things can impact reporting?

- Information campaigns and managers who engage in process improvement activities have been shown to increase health care staff's likelihood of
  - Incident reporting
  - Offering solutions

What would improve incident reporting in Canadian community pharmacies?

- Pilot survey - most important characteristics: anonymity and ability to learn from others
- No difference: managers, pharmacists or technicians

Framework

- Individual-perceived self-efficacy – can I deal with this?
- Medication incident process capability – easy? anonymous? learning?
- Medication incident process support – local buy in? Open discussion?
- Organizational culture – generative, not pathologic
- Management support – encourage, train, resources, discuss
- Regulatory authority support – e.g. apology letter can't be used in litigation
- Implication to the patient

Feedback from incident reporting

- All levels of an organization
- Appropriate mode of delivery
- Relevant to local workplace
- Integrated within safety systems
- Sensitive to different requirement for different users
- Empower front line staff
- Capacity for rapid action
- Available to reporters and stakeholders
- Established, continuous clearly defined processes
- Part of work routine
- Lead to visible improvement
- Credible
- Preserve confidentiality
- Supported by senior level
- Contribute to learning

Qual Saf Health Care 2009;18:11-21

Context WRHA

- Quality and patient safety is reviewing the current incident reporting process
- Numerous stakeholder meetings through all aspects of health care
- Our data has been fed back

Context WRHA Pharmacy

- Raise awareness
- Residency project plan to pursue a non-punitive pharmacy only near miss reporting system to determine impact on near miss reports
- No need for different strategies for pharmacists and technicians

Conclusion

- We observed similar behaviours and attitudes between hospital pharmacists and technicians, although reporting of near misses was low.

- Education of pharmacy staff and managers about near misses may help to encourage reporting.

Acknowledgements

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