

# Integration of ICT into Nurse Mentorship Program

**Kathleen Heslin, RN, MScN,**  
Chief Nurse Executive, York Central Hospital

**Mina Singh, RN, PhD,**  
Assistant Professor, York University

**Abel Cheng, BSc, MEd (Cand.), CCRP,**  
Research Coordinator, York Central Hospital

# Nursing Mentorship

- MOHLTC funding to support mentoring and coaching for healthcare staff
- Mentorship program as recruitment and retention strategy for nursing staff

# Nursing Mentorship

- The current study is a collaborative between York Central Hospital and York University to evaluate a Nurse Mentorship Program that integrated with information and communication technologies (ICTs).



# ICT and Mentorship

- Managing a Mentorship program that includes:
  - Patient focused care
  - Roles & relationships (of Mentors and Mentees)
  - Clinical best practice guidelines education
  - Clinical application

# Pedagogical Assumptions

- Social-constructivist - Learning by doing!
- The learner as a unique individual
- Instructors as facilitators
- ICT to foster the communication dimension in learning

# About Technology



# Skills Requirement

- Basic requirement: same skills set as emailing
- Transferring existing skills to a new environment
- *Remediation*
- *Interaction*

# Course Management System

- Moodle (it's free!)
- WebCT/ Blackboard
- NOT used. Why???
  - Much larger undertaking; curriculum development that fits a web course
  - Tailored to a tech savvy population

# Common “e-learning” elements

- screencasts
- ePortfolios
- electronic performance support system
- PDA's
- MP3 Players with multimedia capabilities
- web-based teaching materials
- hypermedia in general
- multimedia CD-ROMs
- web sites and web 2.0 communities
- discussion boards
- collaborative software
- e-mail
- blogs
- wiki
- text chat
- computer aided assessment
- educational animation
- simulations
- games
- learning management software
- electronic voting systems
- virtual classrooms

# Use of popular online media

- Website
- Discussion forums
- Online surveys

# Mentorship Website

- <http://mentoringatych.com>
- Navigation shaped by participants comments
- Google Calendar
- Discussion forums
  - Popular on the web [http://alexa.com/site/ds/top\\_500](http://alexa.com/site/ds/top_500)
- Education materials
  - Streaming media (i.e. similar to You Tube and Google Video)
- Online Surveys
- Newsletter
- Support
  - More streaming media
  - Contact us form
- *No programming skills required*

# Discussion Forums

- <http://forum.mentoringatych.com>
- Purpose: collaboration, communication, support, discussion >>> INTERACTIVITY
- Similar to blogs; but with better organization
- <http://allnurses.com>
- Benefits of discussing online
- Financially sustainable:
  - 1) free hosting (or low cost hosting)
  - 2) voluntary participation!
- Our intention: let's bring some of that here!
- *No programming skills required*

# Online Surveys

- Pre and post testing; e.g. staff satisfaction surveys
- Low monthly fee online survey company or free with web hosting
- Data automatically collected in a database
- Eliminates data entry error/ person!
- No programming skills required

# E-Nursing Strategy

- Developmental Guide
  - Access
  - Competencies
  - Participation

# Access

- Barriers
  - Cost
  - Restricted Sites
- Solutions
  - Internet
  - Open source, free, or low cost web technology

# Competencies

- Barriers
  - Computer skills
- Solutions
  - Transfer existing skills to a different environment

# Participation

- **Barriers**
  - Multiple factors
  - Anxiety and comfort level with the technology
  - One-way communication
- **Solutions**
  - Use of popular web technology
  - “small steps”

A decorative graphic in the top-left corner consisting of numerous thin, concentric lines that form a series of nested, slightly offset rectangular shapes, creating a sense of depth and movement.

# Outcomes and Lessons

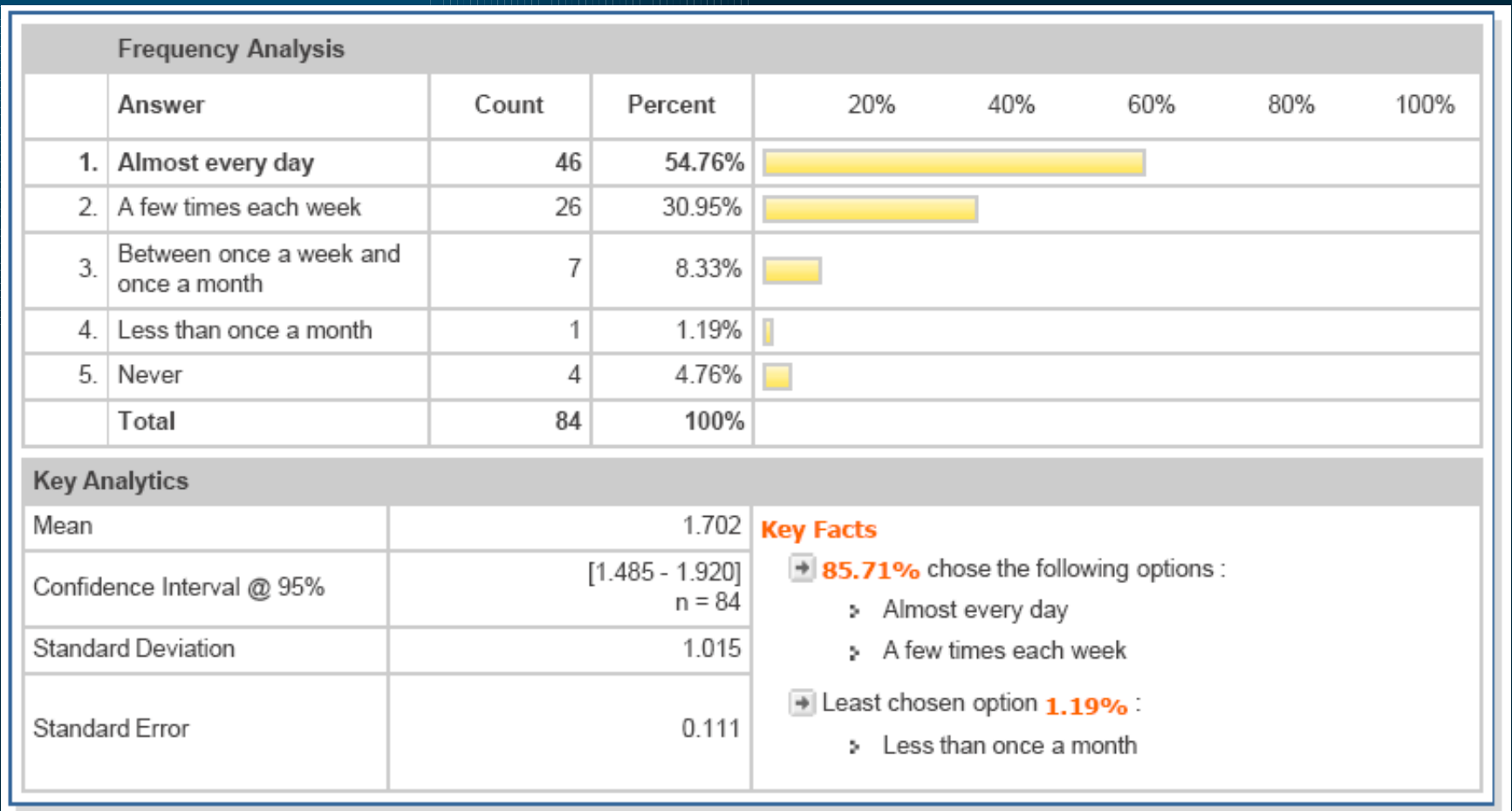
# Variables

- Descriptive
- Process
- Outcomes

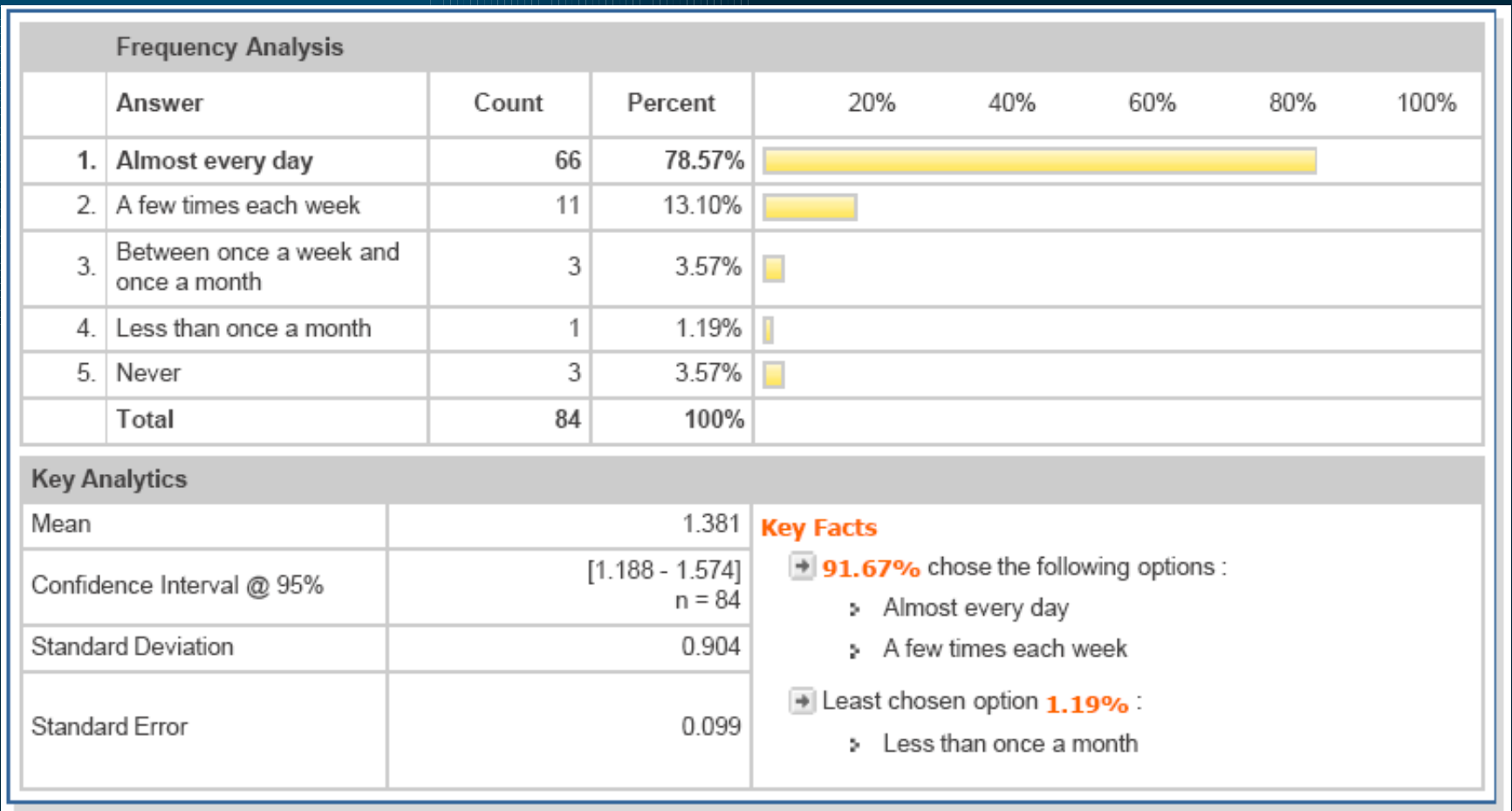
# Quantitative

- Polling question from discussion forum
  - Participants can post their own polls (a measure of quality of ICT use)
- Online surveys
  - Very good response rate >80%
  - NO missing data
  - NO data entry error and \$costs\$
- Hospital database
  - Patient satisfaction and clinical outcomes

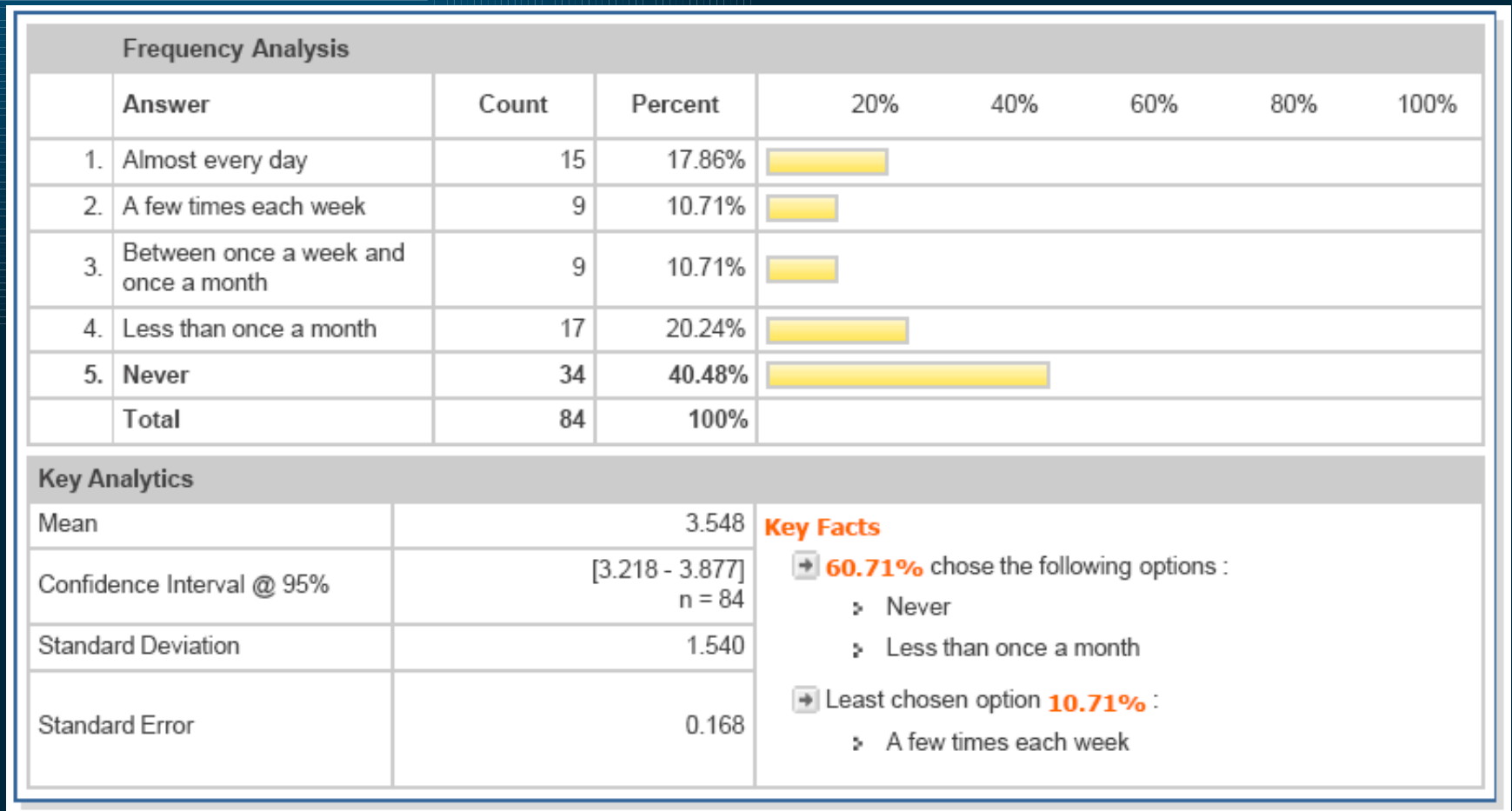
# How often: At YCH



# How often: E-mail?



# How often: Electronic communication other than email (e.g. discussion forum or chat rooms.)



# Technical Issues

- Nursing ICT access & skills: Adequate (see stats)
- Problems with free stuff: poor support and no guarantees
  - Customization still requires programming
  - Low cost is more cost-effective than no cost
- Hospital IT issue
  - MOHLTC block all You Tube sites; end up having to use flash for streaming.

# Qualitative

- Analyze forum discussions; (integrated assessment)
- NEW! way of doing qualitative research; no need to transcribe focus group audio recordings to text
- Written text allows more organized thoughts, hence better data than focus group
- Larger sample size; analysis through time; use of search engines to pick out keywords; on-going evaluation; feedback from and between participants

# Analysis

- Levin, Kim, and Riehl (1990)
  - Four components
    - **Message Flow Analysis**
- Henri (1992)
  - Five dimensions
    - Participant and social interchange
    - Interactive content
    - Organizational content
    - Application of cognitive,
    - And metacognitive

# Participation (lack of)

- Participation is low for mentors and mentees
  - High participation for facilitators
  - Majority of facilitators are older than both mentors and mentees; all have professor/lecturer status

~~“If You Build It, They Will Come”~~

# Competing methods

- Competing classroom education;
  - Competing with live focus group sessions
  - Competing with HARD copies
- 
- E.g. Refusing to give out hard copies worked! Online survey completion rate is very high.

# Formalization (lack of)

- ICT was for support purpose and voluntary
- ICT has an add-on feel to it; to integrate, to play a support role...
  
- Why not formalize it???

  - Are nurses ready?????????

# Conclusions

- Formalization: web course! E.g. Moodle
  - But again, scope and size of project is much greater than our “ICT integration” attempt
- Complex factors
  - E.g. Allnurses.com – not work related

# Contact Info

- Kathleen Heslin
  - [kheslin@yorkcentral.on.ca](mailto:kheslin@yorkcentral.on.ca)
- Mina Singh
  - [Mina.Singh@mail.atkinson.yorku.ca](mailto:Mina.Singh@mail.atkinson.yorku.ca)
- Abel Cheng
  - [acheng@yorkcentral.on.ca](mailto:acheng@yorkcentral.on.ca)