

LCHS4007 : Digital Skills and Research Methods

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Introduction

In this section we will discuss:

- Microsoft excel
- What system is currently being used at Greenfield home care and benefits of Microsoft Excel
- Microsoft excel efficiency
- Microsoft excel limits

Using **Microsoft Excel** at Greenfield Home Care Agency

Microsoft Excel is a spreadsheet program that's part of Microsoft 365. It is used for analysing, storing, managing and organising data. It can be beneficial at Greenfield Home Care because it can help with :

- **Data organisation:** helps to keep all the data well organised within folders and keep everything in one place.
 - **Data management:** it helps with managing patients records and their medications and staff information as well as their shifts.
 - **Productivity:** it can help with calculating staff working hours.
 - **Accessibility:** all the data can be stored to One Drive and staff can have easy access to it.
- (Lee, 2023).

Current System at Greenfield Home Care Agency

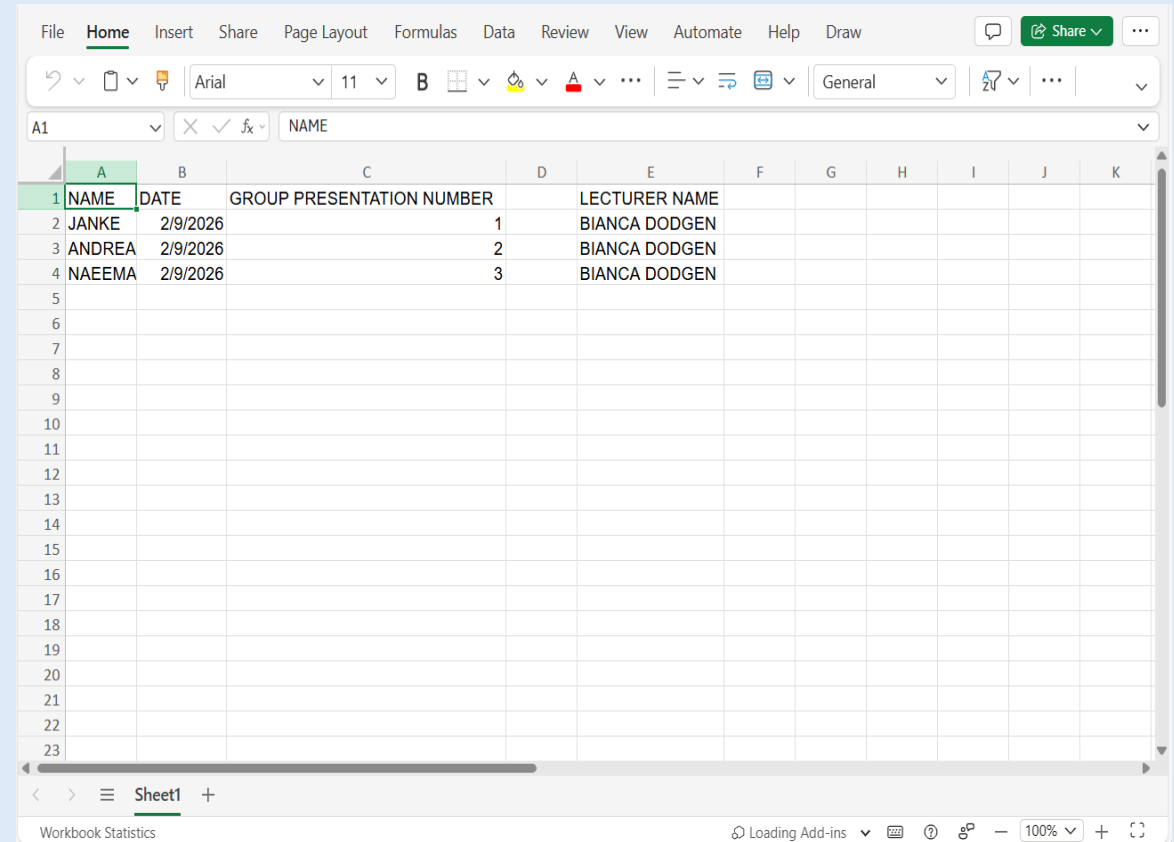
- Paper-based rota
- Handwritten patient records
- Calculating working hours manually
- Risks of losing important and confidential documents
- (Zegers, 2011)

Therefore, staff at Greenfield can benefit and have good use of Microsoft Excel. They will be able to save and protect all the data on Microsoft Excel and keep it confidential. They will also be able to manage staff shifts, keep patients information up to date and easily amend any errors. (Etheridge, 2010)

Using Excel to improve Efficiency

Microsoft Excel can improve its efficiency by:

- Automatically calculating staff working hours
- Protecting all the files with password
- Having easy access
- Managing staff schedule (Khanijahani, 2020)



The screenshot shows a Microsoft Excel spreadsheet with the following data:

NAME	DATE	GROUP PRESENTATION NUMBER	LECTURER NAME
JANKE	2/9/2026	1	BIANCA DODGEN
ANDREA	2/9/2026	2	BIANCA DODGEN
NAEEMA	2/9/2026	3	BIANCA DODGEN

Figure 1: A screenshot of a Microsoft Excel spreadsheet.
(author's own work,2026)

Limitations using Microsoft Excel

Although Microsoft Excel is one of the most powerful programs in Microsoft 365, it still has some limitations:

- Performance issues
 - Conversion problems
 - Security limitations
 - Data capacity
- (Kalsi,2024)

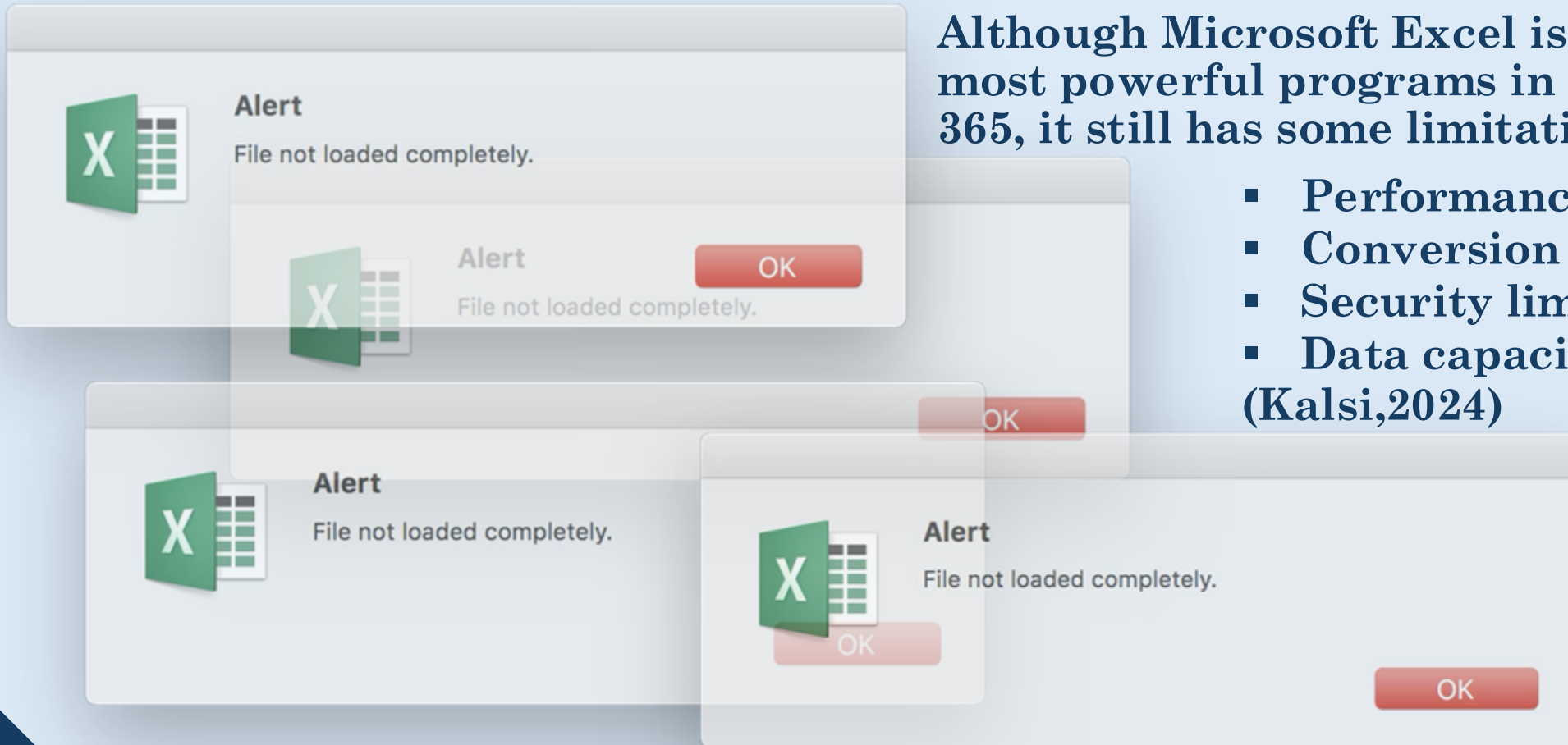


Figure 2



Microsoft Teams and Communication at Greenfield Home Care Agency

What is **Microsoft Teams**?

"Microsoft Teams is a communications and collaboration tool that enables you to chat, call, and meet and collaborate with others in real time." (Withee, 2020). Teams supports rapid communication making it ideal for Greenfield where care coordinators and office staff may need to quickly share information.

Microsoft Teams and communication :

- *"In a Teams channel [...] all channel conversations are stored on the channel's Posts tab, and the distribution of each message is limited to the channel members"* (McFedries, 2023, p. 90), removing clutter aspect.
- Easy-to-follow, relevant and effective conversations between carers, coordinators and nurses.
- Posts can be pinned, staff can quickly find important updates
- Key information, such as shift changes or urgent care updates remain visible to all members of the channel

- *"...If you're in a Teams meeting and you want a quick discussion that involves something related to the meeting content, start an in-meeting chat. When you want to start a more involved discussion that involves everyone [...], create a new conversation in the team's General channel. When you want to talk about something that only relates to the topic of a particular channel, create a new conversation within that channel."* (McFedries, 2023, p. 92). At Greenfield, this allows staff to share information with the appropriate people,
- Improving clarity
- Reducing unnecessary messages
- Reduces potential distractions
- Teams also allows for easy and quick collaboration, *"For example, you can create, upload, and edit Microsoft 365 documents without leaving the Teams environment. And you can share those documents with channel members for a fully collaborative experience."* (McFedries, 2023, p. 146). Real-time document collaboration allows staff at Greenfield to :
- Update care notes, schedules and risk information
- Ensure everyone is working from the most up-to-date information
- Enables carers, coordinators and nurses to work together
- Reduces delays and improve care.



Microsoft Teams and Communication at Greenfield Home Care Agency

Microsoft Teams in action :

"Following the implementation of Microsoft Teams, SHOs reported an improvement in departmental communication and teamwork. The electronic job list was unanimously cited as a feature that expedited high priority task identification and facilitated easier handover of unwell patients / outstanding jobs to on-call teams [...] This project showed that departmental adoption of Microsoft Teams and its file-sharing capacity improved junior doctor job prioritisation and task completion efficiency, with suspected faster delivery of patient care and reduced late finishing times." (Lawson et al., 2024).

This investigation shows how at Greenfield Home Care Agency, similar features could help to support effective communication between the carers, coordinators, and nurses, particularly during shift handovers or when escalating concerns about vulnerable clients. As a result, Microsoft Teams could reduce miscommunication, improve continuity and consistency of care, and support faster responses by workers to the client needs.

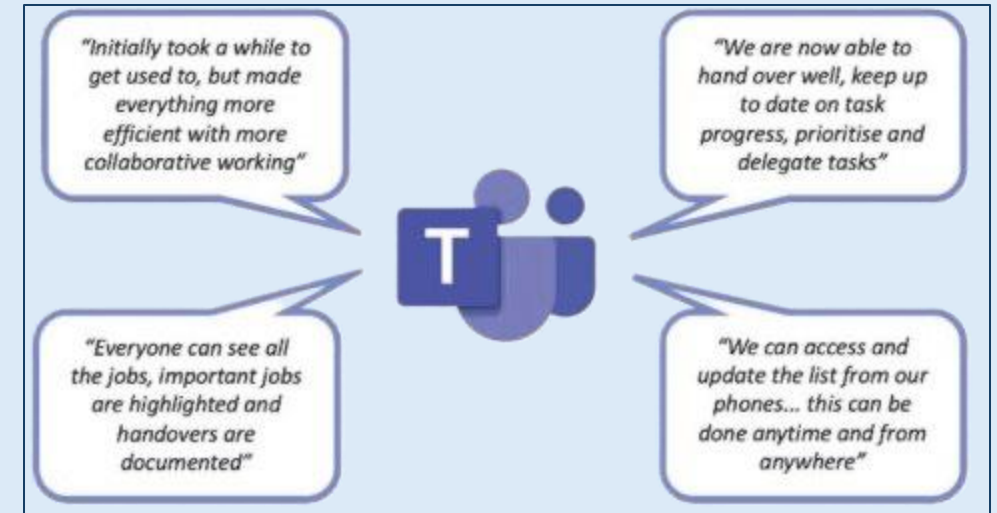


Figure 1 : Feedback from staff members
(Lawson et al., 2024).



Microsoft Teams and Communication at Greenfield Home Care Agency

Microsoft Teams and efficiency :

"The members of a team almost always have something in common. For example, they might all be working on the same project, or they might all be part of the same department, division, or company" (McFedries, 2023, p. 20).

- Quickly access relevant information and client data without searching through hundreds of emails or paper files
- Spend more time focusing on supporting vulnerable individuals
- Calendar feature on Teams makes schedules and updates easy to access and edit from anywhere, improving efficiency and collaboration

Microsoft Teams and digital safety :

"If you're the meeting organiser, one meeting option you might have set up is to have some or all attendees wait in the lobby for you to let them in to the meeting. [...] enables you to deny entrance to anyone you don't recognise. [...] tells you who's waiting to be let in. From there, you can admit or deny, as needed." (McFedries, 2023, p. 245).

- cybersecurity is vital due to potentially sensitive information and data on clients

Microsoft Teams and disadvantages, challenges and limitations :

- *"If you are working offline (that is, you are not connected to the internet), trying to open these files will result in [an] error" (Mahajan, 2024, p. 270), meaning carers and nurses in areas with poorer signal may experience delays in receiving messages or attempting to join meetings.*
- Microsoft Teams difficult to navigate for staff less used to technology, require further training and support
- Potential to lead to poorly structured channels which becomes unorganised and confusing



Introduction

- In this section, we will discuss the importance of digital safety, and how it can be beneficial in a care organisation like Greenfield.

We will be using Microsoft 365 for its excellent organisation and extremely well-developed safety features

Data Management

What is data management?

- Data management is the process of collecting, storing, organising and protecting the use of data.
- Good Data management helps organising work efficiently and securely.

Key points include:

- Ensures data is accurate and easy to access
 - Data can be stored in files, databases or cloud storage
 - to keep data safe and confidential
 - Protecting data using passwords and access control
 - Organising data in folders, clear files names and tables
 - Protecting patient confidentiality while ensuring effective care.
- Porter A P (2016)

Secure Access

How can organisations keep their information safe?

- Use strong passwords, not your name or date of birth
- Never share your password
- Always use a different password for different applications
- Enable two-factor authentication
- Have a backup email address for authenticating
- Regularly update software and security system
- Shut down your device when you are away from it.
- Apply all the above to keep data protected at all times

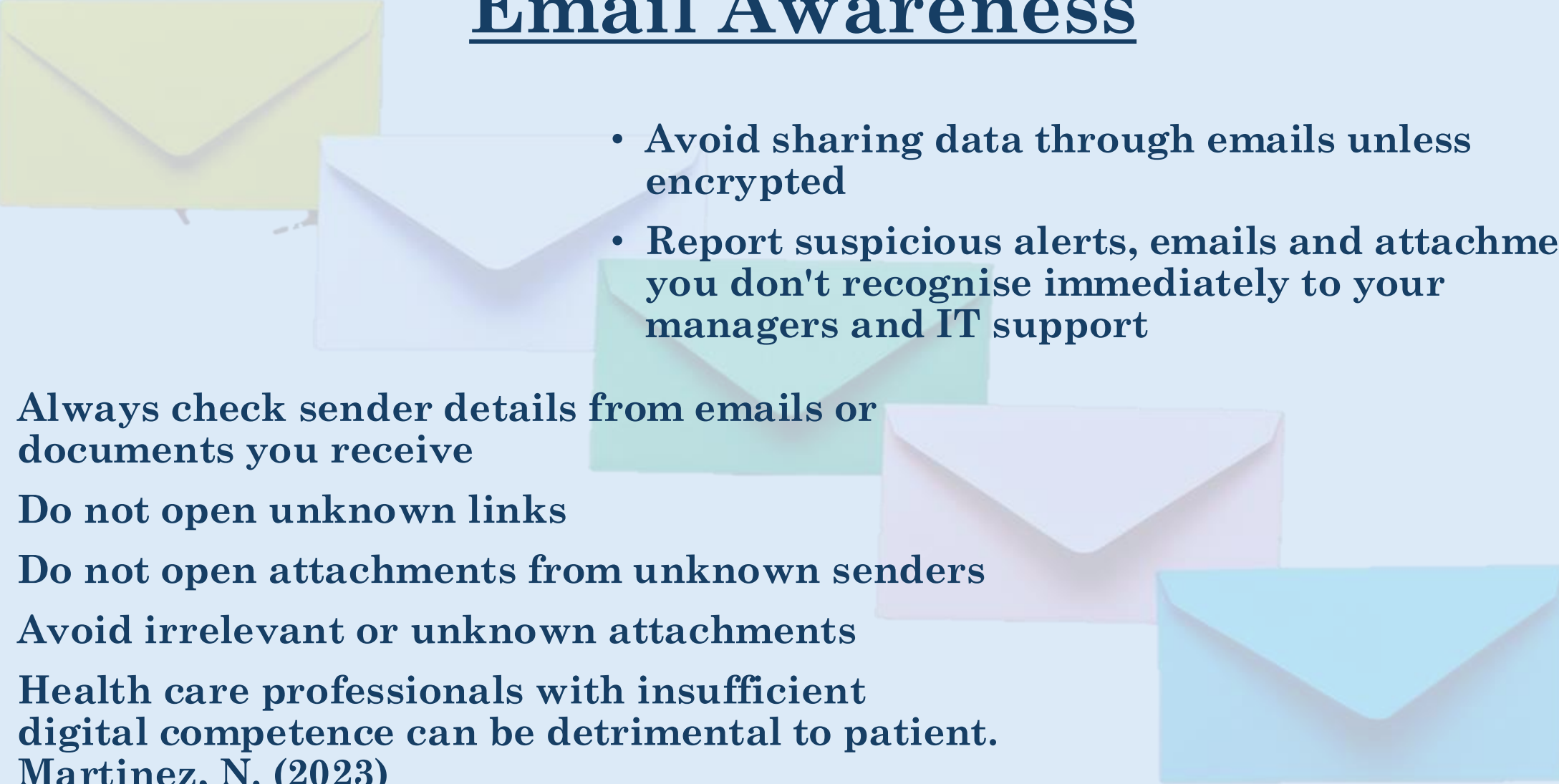
Why Digital Safety is Important

- Stores personal information
- Stores medical data
- Decreases the risk of cyber attacks
- Protects data from getting lost
- Protects data from getting stolen

Nurses receive less training on topics such as data base from health care centres and hospitals where they work, Martinez. N, (2023)

- Protects sensitive information, for example patient information, medical records and much more sensitive content
- Protects staff and patients confidence
- Avoids hackers stealing and using personal and confidential information

Email Awareness

- 
- Avoid sharing data through emails unless encrypted
 - Report suspicious alerts, emails and attachments you don't recognise immediately to your managers and IT support
 - Always check sender details from emails or documents you receive
 - Do not open unknown links
 - Do not open attachments from unknown senders
 - Avoid irrelevant or unknown attachments
 - Health care professionals with insufficient digital competence can be detrimental to patient.
- Martinez, N. (2023)

Confidentiality and Compliance

- Measures to make sure confidentiality and compliance regulations are met
- Make sure GDPR rules are followed
- Data protection act 2018
- All sensitive data must be encrypted
- Multi factor authentication
- Use codes that can be sent to mobile or trusted email address for verification
- Transparency
- clear easy to read privacy notices explaining to patients how their digital information is used
- Legal action may be taken where consent is not granted by patient
- The NHS data breach has severe implications
- NHS (2024)



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