

Stress in patients undergoing heart surgery in relation to blood glucose levels

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Background

- The pre-operative stress causes the release of cortisol, which is characterized as a stress hormone
- Increase of cortisol, in patients undergoing heart surgery



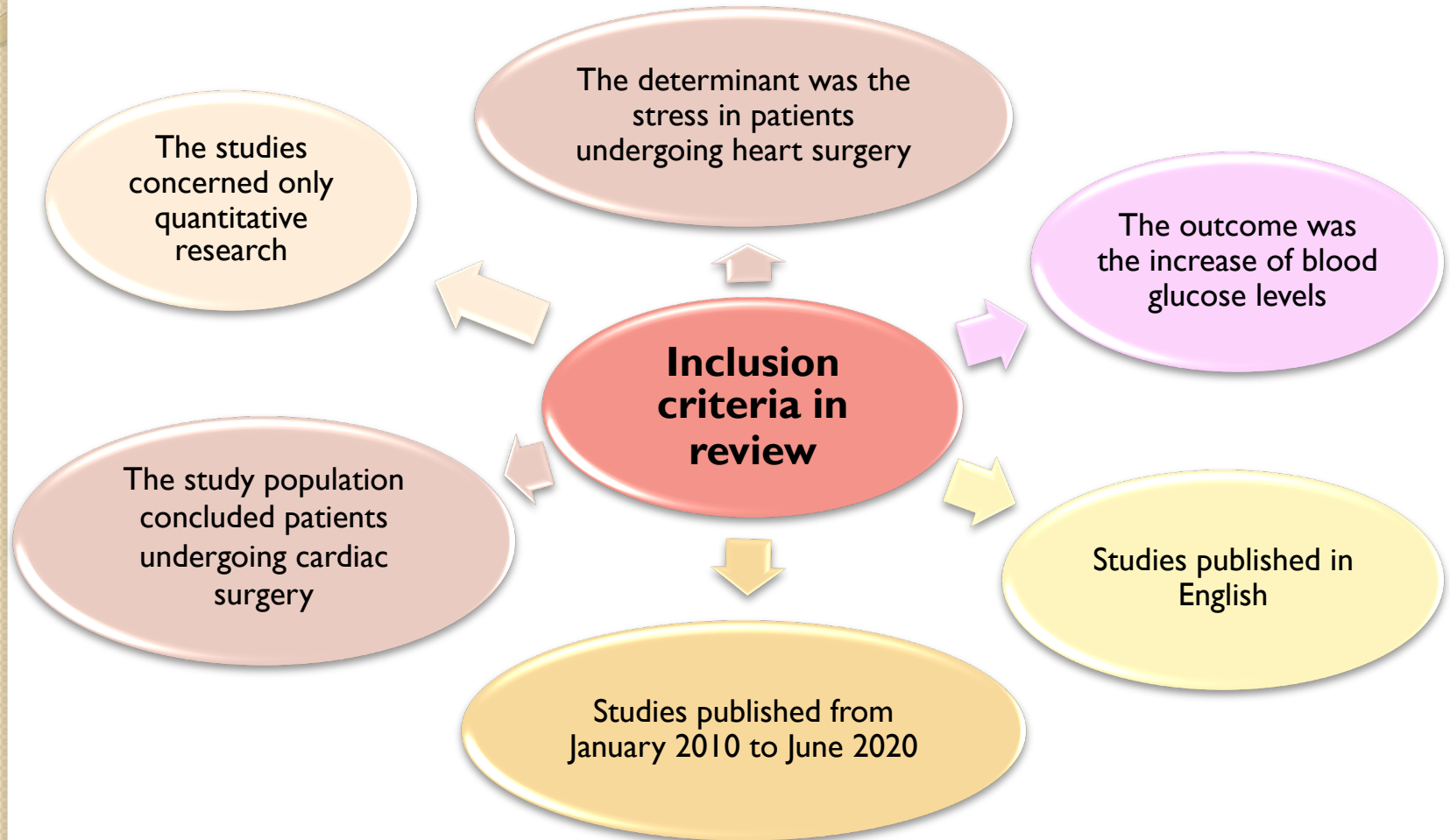
raise of blood glucose levels

Aim of the study

The aim of the current study was to investigate how stress affects the increase of blood glucose levels in patients undergoing heart surgery

Method

- Literature review carried out in databases PubMed and Scopus
- **Key words:** patients, stress hormone, hyperglycemia, high blood glucose levels, cardiac surgery, heart disease



Results

- The current review has identified that cardiac surgery induces a significant hyper-metabolic stress in patients, resulting in hyperglycemia during the pre or post-operative period
- Pre-operative or post-operative stress is evaluated through many scales such as:
 - ❖ “Stait-trait anxiety inventory (STAI)”,
 - ❖ “Hospital Anxiety and Depression Scale (HADS)”,
 - ❖ “Depression Anxiety Stress Scales (DASS)”, etc.

Conclusions

- It is of great importance, nurses to evaluate pre or post-operative stress in patients undergoing heart surgery through stress scales, in order to prevent possible high blood glucose levels
- Further clinical trials should investigate if specific intervention program for preventing pre or post-operative stress would be capable to avoid hyperglycemia