

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of glucose consumption on night shift nursing personnel accuracy in their job performance

Protocol summary

Summary

Aims: Effect of glucose on improving brain cognition performance in general and accuracy in particular has been explored by many researchers. For Nurses accuracy in job performance is of paramount importance and any lapse could result in irreversible damage for patients. In this study we aim to determine the effect of blood glucose concentration on accuracy of job performance in nurses doing night shifts in selected military hospitals.

Methods: Through a quasi-experimental study and convenience sampling, 60 nurses doing night shifts in two military hospitals in Tehran between September 2009 and April 2010 were recruited. Inclusion criteria were 1) Nurses working on night shifts (at least one shift in a week); 2) Minimum qualification of Bachelor of Science; 3) Normal visual accuracy (with glasses if necessary); 4) No Acute stress; 5) Lack of other concurrent disease; 6) Normal BMI. Exclusion criteria were 1) Patients having diabetes mellitus; 2) History of using drugs such as Thiazides and Steroids that interfere with blood sugar level ; 3) Pregnancy . Subjects were randomly assigned into case and control groups. Demographic data was collected through a questionnaire. Data on accuracy was collected using Tulus Pirven and Bonardel tests at 4-5 o'clock in the morning. Blood glucose concentration was measured before the intervention. Then case group were given 75gr glucose syrup and control group was received water without any added sugar. One hour after intervention accuracy tests were repeated and blood glucose reevaluated in both group. Key words: Glucose, accuracy, nurse, night work shift

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138808272730N1**

Registration date: **2010-06-07, 1389/03/17**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2010-06-07, 1389/03/17

Registrant information

Name

Hosein Mahmoudi

Name of organization / entity

Baqiatallah University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 2228 6039

Email address

h.mahmoudi@bmsu.ac.ir

Recruitment status

Recruitment complete

Funding source

Baghiatallah University of Medical Sciences

Expected recruitment start date

2010-02-20, 1388/12/01

Expected recruitment end date

2010-08-23, 1389/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of glucose consumption on night shift nursing personnel accuracy in their job performance

Public title

The effect of glucose consumption on night shift nursing

personnel accuracy in their job performance

Purpose
Other

Inclusion/Exclusion criteria
Inclusion criteria 1- Nurses working on night shifts (at least one shift in a week) 2- Minimum qualification o f Bachelor of Science 3- Normal visual accuracy (with glasses if necessary) 4- No Acute stress 5- Lack of other concurrent disease 6- Normal BMI Exclusion criteria 1- Diabetes mellitus 2- History of using drugs such as Thiazides and Steroids that interfere with blood sugar level 3- Pregnancy

Age
No age limit

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: 60

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Baqiyatallah University of Medical Sciences
Street address
Velayat complex, Araj, Aghdasieh,
City
Tehran
Postal code
00982122286057
Approval date
2009-12-28, 1388/10/07
Ethics committee reference number
22/340/س

Health conditions studied

1

Description of health condition studied

Accuracy in Nursing Job performance

ICD-10 code
-

ICD-10 code description
-

Primary outcomes

1

Description
Accuracy in Nursing job performance
Timepoint
before and 1 hour after intervention
Method of measurement
Tolus Pirven and Bonardel tests

Secondary outcomes

empty

Intervention groups

1

Description
Glucose syrup (75gr glucose)
Category
Other

2

Description
Water
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Selected hospital
Full name of responsible person
Fereydoun Shokrollahi
Street address
Nursing School, Bagiatallah University of Medical Sciences
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Neuro-science center, Bagiatallah University of Medical Sciences
Full name of responsible person
Dr Sahraee

Street address

Bagiatallah University of Medical Sciences, Mulla Sadra st.,

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Neuro-science center, Bagiatallah University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

empty

Person responsible for general inquiries**Contact****Name of organization / entity**

Baghiatallah University of Medical Sciences

Full name of responsible person

Fereydoun Shokrollahi

Position

Master of Sciences

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty