

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



دانشگاه علوم پزشکی باقل

# اصول پایه روش تحقیق در علوم پزشکی

دکترهدی شیرافکن

بهار ۱۴۰۰

# کلیات

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ایده جدید ▶

متدولوژی و روش درست ▶



# چگونه به ایده های تحقیقاتی جدید دست یابیم؟

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✓ مقالات

✓ Year Book

✓ [www.mdLINX.com](http://www.mdLINX.com)

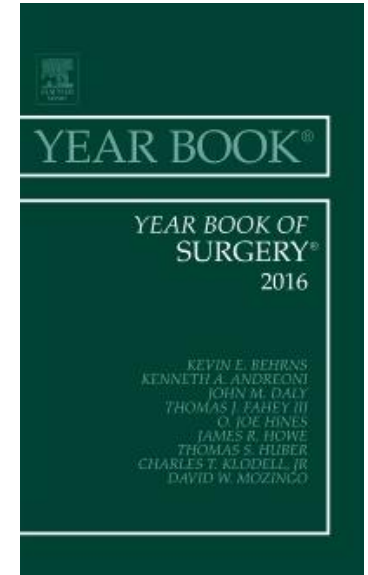
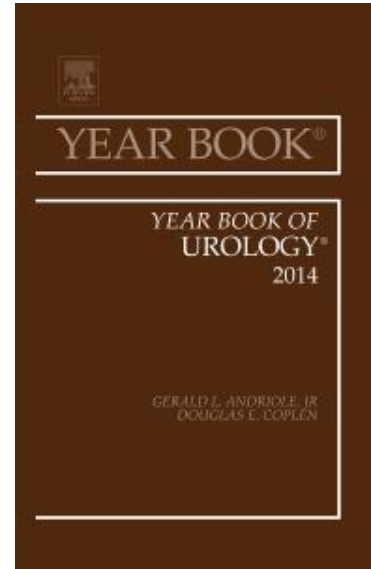
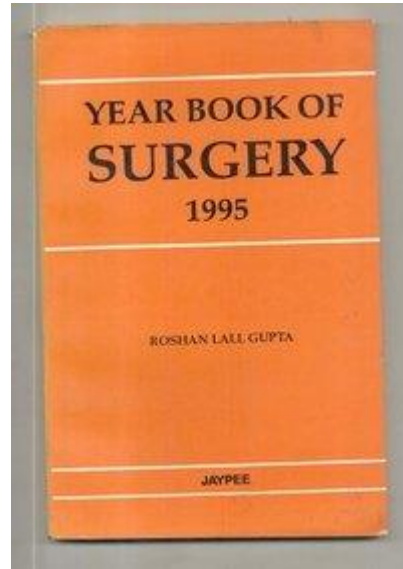
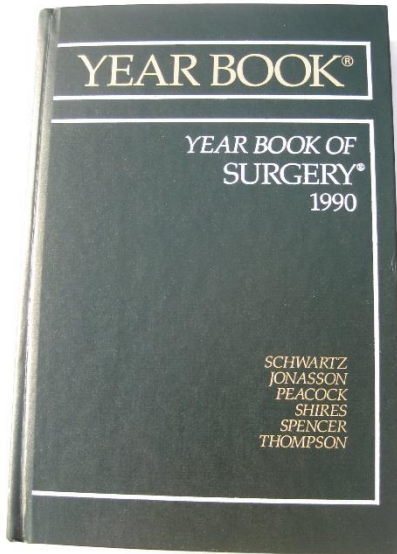
✓ [m3medical.com](http://m3medical.com)

✓ کنگره ها



# Year Books

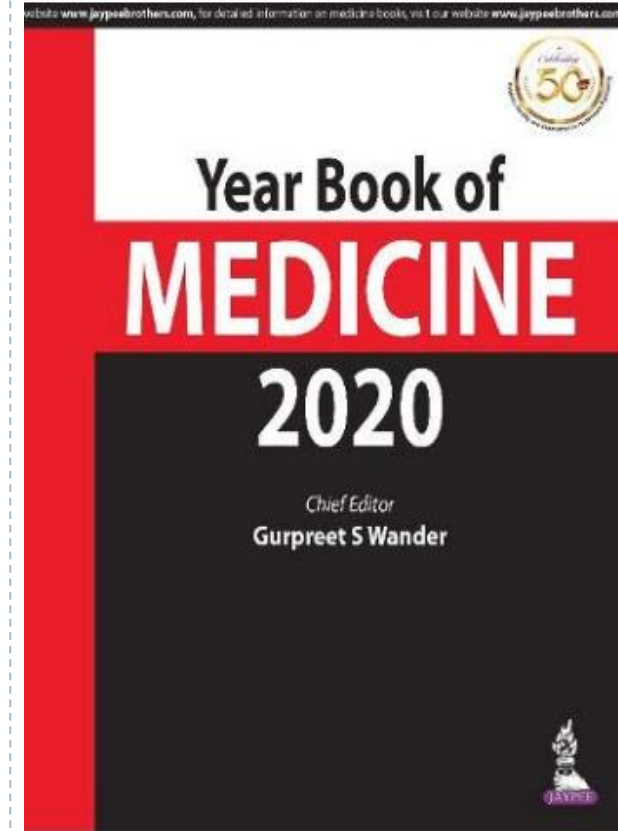
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The book contains 9 sections of Cardiology;

- ▶ Chest and Critical Care;
- ▶ Diabetes and Metabolic Disorders;
- ▶ Gastroenterology and Hepatology;
- ▶ Infectious Diseases, HIV and TB;
- ▶ Miscellaneous (Geriatrics, Genetics, and Pregnancy Related);
- ▶ Nephrology and Hypertension;
- ▶ Neurology;
- ▶ and Rheumatology and
- ▶ Immunology.

Each section has around 21 articles covering useful new information in the literature.



# Year Books

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- ▶ Each section has approx. 21 articles from high-impact factor journals and some important journals.
- ▶ A title is given to each commentary, which gives the main message of the trial.
- ▶ The commentary discusses the article and relevant issues.
- ▶ Uniformity in the pattern of commentaries, simple expressive language, and associated clinical message are distinguished features of the book
- ▶ A compilation of all the significant trials of 2019





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FOOD & DIET

## 5 healthy foods to keep you feeling full

ALZHEIMER DISEASE

### First-in-human clinical trial to assess gene therapy for Alzheimer's disease

*MedicalXpress Breaking News-and-Events* | Feb 19



FOOD & DIET

### Can these popular diets do more harm than good?

PHYSICIAN

### 10 Black Doctors Who Made Medical History [Gallery]

*PhysicianSense* | Feb 16

DIABETES

### Trends in predominant causes of death in individuals with and without diabetes in England from 2001 to 2018: An epidemiological analysis of linked primary care records

*The Lancet Diabetes & Endocrinology* | Feb 20

ASTHMA



## CANCER INSIGHT CENTRE

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# منشور تحقیق



# معیارهای انتخاب عنوان

# مدل اول (مطالعات مشاهده‌ای)

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## ▶ معیارهای اساسی

- ▶ قابلیت اجرا
- ▶ اجتناب از دوباره کاری
- ▶ متناسب با زمان بودن

## ▶ معیارهای جنبی

- ▶ مناسبت داشتن (وسعت و شدت مساله)
- ▶ با صرفه بودن

## ▶ ملاحظات اخلاقی



# مدل دوم (مطالعات مداخله ای)

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- ▶ ضرورت
- ▶ مناسبت
- ▶ احتمال موفقیت
- ▶ تاثیر نهایی حاصل از پیامدهای پژوهش





# How to write a good title

# Title

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- ▶ First & most of the times the **only part of an article** that readers and editors **see and read**.
- ▶ Key elements that advertises the paper's contents
  - ▶ **Informative** and **Specific**
- ▶ Maybe helpful to choose the title when the paper is complete



# Characteristics of an effective title

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- ▶ Short and simple
- ▶ Concise and precise
- ▶ State subject, not conclusion
- ▶ Include study design (no consensus)
- ▶ Include time and place if necessary
- ▶ Remove empty phrases such as “A study of ...”
- ▶ Use subtitles (notice number of words) “Exercise and Coronary Heart Disease: Framingham Offspring Study”





# Characteristics of an effective title

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- ▶ Identify the main issue of your paper
- ▶ Begin with the subject of your paper
- ▶ A good title must be accurate, unambiguous, specific, and complete
- ▶ Do not contain abbreviations.
- ▶ Informative
- ▶ Attract readers



# Different ways of writing titles

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- ▶ **Titles that give independent variable, dependent variable, and population (classic method):**
  - Effect of asthma on linear growth in children
  - **Asthma** and **linear growth in children**
- Classic titles can be boring, especially if they are not short and concise.



# Titles that give independent variable, dependent variable, and population

## REVIEW

### Human Health and Ocean Pollution

Philip J. Landrigan<sup>\*</sup>, John J. Stegeman<sup>†</sup>, Lora E. Fleming<sup>‡,§</sup>, Denis Allemand<sup>||</sup>, Donald M. Anderson<sup>†</sup>, Lorraine C. Backer<sup>¶</sup>, Françoise Brucker-Davis<sup>\*\*††</sup>, Nicolas Chevalier<sup>\*\*††</sup>, Lilian Corra<sup>\*\*§§</sup>, Dorota Czerucka<sup>||</sup>, Marie-Yasmine Dechraoui Bottein<sup>||,¶¶\*\*\*</sup>, Barbara Demeneix<sup>†††,‡‡‡</sup>, Michael Depledge<sup>§</sup>, Dimitri D. Deheyn<sup>§§§</sup>, Charles J. Dorman<sup>||||</sup>, Patrick Fénelin<sup>\*\*††</sup>, Samantha Fisher<sup>\*</sup>, Françoise Gaill<sup>†††</sup>, François Galgani<sup>¶¶¶</sup>, William H. Gaze<sup>\*\*\*\*</sup>, Laura Giuliano<sup>††††</sup>, Philippe Grandjean<sup>††††</sup>, Mark E. Hahn<sup>†</sup>, Amro Hamdoun<sup>§§§§</sup>, Philipp Hess<sup>¶¶¶</sup>, Bret Judson<sup>\*</sup>, Amalia Laborde<sup>||||||</sup>, Jacqueline McGlade<sup>¶¶¶¶,\*\*\*\*\*</sup>, Jenna Mu<sup>\*</sup>, Adetoun Mustapha<sup>††††,‡‡‡‡</sup>, Maria Neira<sup>§§§§§</sup>, Rachel T. Noble<sup>|||||||</sup>, Maria Luiza Pedrotti<sup>†††,¶¶¶¶</sup>, Christopher Reddy<sup>\*\*\*\*\*</sup>, Joacim Rocklöv<sup>†††††</sup>, Ursula M. Scharler<sup>†††††</sup>, Hariharan Shanmugam<sup>\*</sup>, Gabriella Taghian<sup>\*</sup>, Jeroen A. J. M. van de Water<sup>||</sup>, Luigi Vezzulli<sup>§§§§§</sup>, Pál Weihe<sup>|||||||</sup>, Ariana Zeka<sup>¶¶¶¶¶</sup>, Hervé Raps<sup>||,\*\*\*\*\*</sup> and Patrick Rampa<sup>||,\*\*\*\*\*</sup>

**Background:** Pollution – unwanted waste released to air, water, and land by human activity – is the largest environmental cause of disease in the world today. It is responsible for an estimated nine million premature deaths per year, enormous economic losses, erosion of human capital, and degradation of ecosystems. Ocean pollution is an important, but insufficiently recognized and inadequately controlled component of global pollution. It poses serious threats to human health and well-being. The nature and magnitude of these impacts are only beginning to be understood.

**Goals:** (1) Broadly examine the known and potential impacts of ocean pollution on human health. (2) Inform policy makers, government leaders, international organizations, civil society, and the global public of these threats. (3) Propose priorities for interventions to control and prevent pollution of the seas and safeguard human health.

# Titles that give independent variable, dependent variable, and population

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> [SICOT J. 2021;7:5. doi: 10.1051/sicotj/2021001. Epub 2021 Feb 17.](#)

## Older patients with proximal femur fractures and SARS-CoV-2 infection – An observational study

Abdus S Burahee<sup>1</sup>, Veronica E Barry<sup>1</sup>, Robert P Sutcliffe<sup>2</sup>, Sabreena Mahroof<sup>1</sup>

Affiliations [+ expand](#)

PMID: 33595434 DOI: 10.1051/sicotj/2021001

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### Abstract

**Background:** Older patients are at increased risk of severe COVID-19 infection and associated mortality. There are limited data evaluating the outcome of older patients with hip fractures treated during the COVID-19 pandemic, and it has been suggested that these patients should be treated non-operatively due to high mortality risk. The aim of this study was to report the outcomes of COVID-19 infected hip fracture patients treated at a single centre.

**Methods:** This was a retrospective cohort study. Data were collected from February 2020 (after the first confirmed COVID-19 infected patient was reported in the Midlands region of the UK). All patients admitted to the hospital with femoral neck fractures were included. Patient demographics, comorbidity, COVID-19 status, and short-term clinical outcomes were obtained by review of electronic medical records. The outcomes of COVID-19 infected patients were compared with non-COVID-19 patients treated during the study period.

**Results:** Twenty-nine patients were included (mean age of 80 years), of whom 14 (48%) were tested

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# Different ways of writing titles

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## ❑ **Titles that pose a question:**

- Does asthma reduce linear growth?
- Are asthmatic children shorter than non-asthmatic children?
- ✓ May attract readers who want to know the answer.
- They tend to **suggest a positive result** and are therefore **misleading** if ...



# Titles that pose a question



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(L.H. Olsen)

## Keywords

Congenital urinary tract obstruction; Transforming growth factor  $\beta$ 1; Fibrosis; Therapeutics

Received 28 April 2017  
Accepted 22 August 2017  
Available online xxx

Journal of Pediatric Urology (2017) xx, 1–7

## Review Article

# Can bladder fibrosis in congenital urinary tract obstruction be reversed?

Yu Tao Lu <sup>a</sup>, Stine Julie Tingskov <sup>a</sup>, Jens Christian Djurhuus <sup>a</sup>, Rikke Nørregaard <sup>a</sup>, L. Henning Olsen <sup>a,b</sup>

## Summary

A variety of conditions exists in adults and children in which functional or anatomical urinary tract obstructions cause bladder fibrosis, which reduces the bladder's ability to store and empty urine. Current surgical procedures include removal of the obstructions to facilitate bladder emptying or prompt pre-natal or postnatal spinal closure to prevent further neurogenic damage. Bladder fibrosis may occur, and it can get worse if a flow hindrance persists or

deteriorates. Anti-fibrotic therapeutic strategies that target a variety of factors have been developed in animal models, but currently there are no anti-fibrotic therapies available for clinical use. This review examines the pathogenesis of bladder fibrosis that is caused by congenital obstructions of the lower urinary tract, and it focuses on the principal signalling factors and potential treatment modalities.

## Introduction

Congenital urinary tract obstruction (CUTO) accounts for most of the chronic kidney disease that occurs during childhood [1], and the obstructions are categorised into upper and lower urinary tract obstructions according to the obstruction site. Congenital upper urinary tract obstruction causes hydronephrosis, which is accompanied by abnormalities in the smooth muscle tissue of the pelvis and ureter

available to manage these fibrotic changes, there is a significant unmet medical need.

This review examines the pathogenesis of fibrosis in the lower urinary tract, and it focuses on the principal signalling factors involved in fibrosis and offers potential treatment modalities.

## Literature search

We searched the literature using the PubMed,

# Titles that pose a question

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## Can anthropometric measures be used as proxies for body composition and physical function in geriatric outpatients?

Carolina H Y Ling <sup>1</sup>, Carel G M Meskers <sup>2</sup>, Andrea B Maier <sup>3</sup>

Affiliations [+](#) expand

PMID: 33610124 DOI: [10.1016/j.archger.2021.104379](https://doi.org/10.1016/j.archger.2021.104379)

### Abstract

**Objectives:** The study aimed to evaluate the associations between anthropometric measures with body composition, in particular skeletal muscle mass, and with physical function in a cohort of geriatric outpatients.

**Methods:** We included 572 outpatients who attended geriatric clinics at Amsterdam UMC, location VUmc, Netherlands from January 2014 to December 2015. Anthropometric measures (height, weight, body circumferences, body mass index (BMI), waist-to-hip ratio (WHR) and waist-to-height ratio (WHtR)), and physical function measures (handgrip strength (HGS), Short Physical Performance Battery (SPPB) and Timed Up and Go test (TUG)) were obtained. Body composition was analysed using bioimpedance analysis (BIA) in a subgroup of 78 patients. Gender-stratified regression analyses were performed to test associations between anthropometric measures with body composition and physical function, adjusted for age.

**Results:** In females, BMI, WHtR and all measured body circumferences were positively associated with body fat mass (BFM) (all  $\beta \geq 0.64$ , all  $p \leq 0.001$ ). BMI and mid-upper arm circumference were also associated with fat-free mass (FFM) ( $\beta = 0.49$ ,  $p = 0.001$ ;  $\beta = 0.53$ ,  $p = 0.01$ ), skeletal muscle mass (SMM)



# Different ways of writing titles

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- ❑ **Titles that give the answer to the question: (The “assertive sentence title”)**
  - Asthma is negatively associated with growth in height during adolescence
  - Linear growth deficit in asthmatic children
- ❑ **Whilst these title work well to attract attention amongst the poster rows at a conference, they should certainly not be used to report study results in a journal article.**





# Different ways of writing titles

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## ❑ **Titles that give the answer to the question (cont.):**

- ❖ The “assertive sentence title” has grown in popularity but **Should Be Avoided** at all costs for journal articles.
  - ❖ These titles give an answer to the study question and, as such, convey an impression of eternal truth.
  - ❖ What about possibility of error???
  - ❖ It remains in literature forever.
- 



# Title

---

- ▶ Try and work towards a title that is
  - **Short**
  - **Informative**
  - **Attractive**
  - **Factually correct**



- 
- ▶ Title in cross-section studies
  - ▶ Title in case-control and cohort studies
  - ▶ Title in interventional studies



# cross-section studies: example

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## Gastrointestinal symptoms in patients with diabetes mellitus and non-diabetic: A cross-sectional study in north of Iran

Mehrnaz Asgharnezhad <sup>1</sup>, Farahnaz Joukar <sup>2</sup>, Mohammad Fathalipour <sup>3</sup>,  
Mohammadjavad Khosousi <sup>4</sup>, Soheil Hassanipour <sup>5</sup>, Akram Pourshams <sup>6</sup>, Roya Mansour-Ghanaei <sup>7</sup>,  
Fariborz Mansour-Ghanaei <sup>8</sup>

Affiliations [+ expand](#)

PMID: 31235163 DOI: [10.1016/j.dsx.2019.05.028](https://doi.org/10.1016/j.dsx.2019.05.028)

### Abstract

**Background and aim:** Gastrointestinal (GI) symptoms are common in patients with diabetes mellitus (DM), which involved in high cost of health care and low quality of life. The aim of this study to investigate the prevalence of GI symptoms in diabetic patients referred to the Gastrointestinal and Liver Diseases Research Center (GLDRC), Guilan University of Medical Sciences (Rasht, Iran) using a validated questionnaire.

**Methods:** In this descriptive, cross-sectional study, 255 diabetic patients and 255 non-diabetic subjects were recruited. Participants were randomly selected. The questionnaire recorded GI symptoms among the study population.



# case-control studies: example

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› [Hernia](#). 2020 Oct;24(5):1107-1112. doi: 10.1007/s10029-019-02075-8. Epub 2019 Nov 16.

## Nutritional status and constipation scoring of inguinal hernia patients: a case-control study

C Idiz <sup>1</sup>, C Cakir <sup>2</sup>

Affiliations + expand


PMID: 31734784 DOI: [10.1007/s10029-019-02075-8](#)

### Abstract

**Purpose:** There are many risk factors for inguinal hernia that have been determined in the literature, but the relationship between nutritional status and inguinal hernia has not yet been examined. In this study, we evaluated the constipation scale and food consumption of patients with inguinal hernia.

**Methods:** This prospective case-control study was performed between March 2018 and March 2019. The patients who were admitted for inguinal hernia operation were the case group, and those patients who had been admitted to the same hospital without inguinal hernia were the control group. The age, body mass index, alcohol and smoking habits, daily activity, and the Wexner constipation scoring were

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Title in interventional studies

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PICO:

Patients

Intervention

Comparison

Outcome

---



# Example

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Intervention

[The efficacy and safety of **testa triticum tricum purif** in treatment of **functional constipation** in the **late middle-aged and elderly patients**: a multicenter randomized controlled clinical trial]

Outcome

Patients

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# Example

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The Effect of **Probiotic Yogurt** on  
**Constipation** in **Pregnant Women**: A  
Randomized Controlled Clinical Trial

