

Lecture Series LXXXIII

PARI: Strengthening Health Research in Nepal

Kathmandu, 6th April 2015

Prof. Edwin van Teijlingen



Partnership on improving Access to Research Literature for Higher Education Institutions in Nepal (PARI)

Grantholders: Ram Sharan Pathak, Padam Simkhada, Bhimsen Devkota, Edwin van Teijlingen

Collaborators: Trilochan Pokharel, Pramod Regmi, Julie Bruce, Amudha Poobalan, Janet Ashwell, Brijesh Sathian, Paras K. Pokharel, Shyam Lohani, Sujan Marahatta, Dayaram Lamsal, Shishir Gokhale.



Accessing research literature

Accessing research literature: A mixed-method study of academics in Higher Education Institutions in Nepal

Simkhada P¹⁻⁶, van Teijlingen E⁵⁻⁷, Devkota B⁸⁻⁹, Pathak SR¹⁰⁻¹¹, Sathian B¹²



Research Methods Coverage in Nepal

Research Methods Coverage in Medical and Health Science Curricula in Nepal

Simkhada P¹⁻⁶, van Teijlingen E⁵⁻⁹, Pokharel T¹⁰⁻¹³, Devkota B¹⁴⁻¹⁵ and Pathak RS¹⁶⁻¹⁷

References:

Simkhada, P., van Teijlingen, E., Pokharel, T., Devkota, B., Pathak, R.S. (2013) Research Methods Coverage in Medical & Health Science Curricula in Nepal, *Nepal J Epidemiol* 3(3): 253-258.

www.nepjol.info/index.php/NJE/article/view/9185

Simkhada, P., van Teijlingen, E., Devkota, B., Pathak, R.S., Sathian, B. (2014) Accessing research literature: A mixed-method study of academics in Higher Education Institutions in Nepal, *Nepal J Epidemiol* 4(4): 405-14. www.nepjol.info/index.php/NJE/article/view/11375

PARI: Evidence-based practice

Evidence-based medicine or health care or policy-making relies on good information to base your decisions upon.



Good research evidence needs to be collated, assessed and disseminated for practitioners / policy-makers.



Best possible research evidence needs to 'fit' into local culture and available health systems & services.



Research is about being critical & questioning!

PARI: Research in Nepal

HE (Higher Educ.) which is research-based or research focused seems to be in its infancy in Nepal, but growing.

Teaching at Nepalese universities appeared to be more didactic than in the UK.

What we teach doctors/nurses today as best practice “much of it will be out of date or wrong in 15 years time”.

Health care workers need skills to find and assess available research evidence for their future practice.

University staff needs right attitudes, skills & confidence to offer research-based teaching (= *Capacity Building*).

Limited research capacity



Conducted research
to establish state
of health &
medical research
in Nepal in period
1996 to 2007.

Health and Medical Research in Nepal: A Bibliometric Review

Asia-Pacific Journal of Public Health
22(4) 492–500
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DOI: 10.1177/1010539510371020
<http://aph.sagepub.com>
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Padam P. Simkhada, PhD^{1,2}, Yuba R. Baral, MSc¹,
and Edwin R. van Teijlingen, PhD^{1,2,3}

Abstract

This study aimed to quantify the following: (1) health research in academic journals covering Nepal, (2) location of authors, and (3) most prevalent specialties. Published health research conducted in Nepal during 1996 to May 2007 was assessed by searching from 4 electronic databases, and 631 research articles met the inclusion criteria. Only 11% was published in Nepalese journals. Most research covered urban districts. About two thirds of articles had Nepalese authors, but only 41% had a Nepalese first author. Child health and nutrition (11%), maternal health and

Limited research capacity II

Paper concluded:

- number health research articles is small, perhaps due to:
 - lack of funding;
 - poor health research planning & policies;
 - lack proper training;
 - an underdeveloped research culture.

Research capacity focus

- Limited research capacity
- Underdeveloped research culture
- Practice needs to be evidence-based
- Research resources (e.g. HINARI)
people don't know about it and/or use it
- Motivated by MDG 8: Develop a Global Partnership for Development

WHO: HINARI

HINARI Access to Research in Health Programme

HINARI Programme set up by WHO together with major publishers, enables low- and middle- income countries to gain access to one of the world's largest collections of biomedical and health literature. Up to 13,000 journals (in 30 different languages), up to 29,000 e-books, up to 70 other information resources are now available to health institutions in more than 100 countries, areas and territories benefiting many thousands of health workers and researchers, and in turn, contributing to improve world health.

HINARI
Research in Health

Other Sister Programmes with



Access to Research4Life [↗](#)



Access to Global Online Research in Agriculture [↗](#)

Brief video about AGORA



Access to Research in the Environment [↗](#)

Brief video about OARE



Access to Research for Development and Innovation [↗](#)

PARI: Overview

Capacity-building programme to ensure higher education staff in Nepal become more aware of world-wide electronic literature and use this information critically.

- 2010
 - Curricula review & Needs assessment
 - Training package development
- 2011
 - Field testing training package
 - Training academics & librarians across Nepal
- 2012/2013
 - Workshop Curriculum Improvement
 - Development of Network & Dissemination
- 2014
 - Writing academic papers.



DEVELOPMENT PARTNERSHIPS
IN HIGHER EDUCATION

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Pari Project

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Tribhuvan University (Nepal), the University of Aberdeen, Bournemouth University, the University of Sheffield (both in the UK) and the Development Resource Centre, a non-governmental organisation based in Kathmandu, formed a Partnership on improving Access to Research Literature for Higher Education Institutions in Nepal (PARI). PARI is a three-year capacity-building programme which aims to ensure higher education lecturers in Nepal become more aware of the world-wide electronic literature and learn how to use this information critically. Higher education lecturers and researchers, including university teachers, often do not access freely available research literature databases in Nepal. A lack of knowledge of available resources and a lack of the necessary skills to search for evidence are key barriers to accessing the research literature. Access to research literature is essential for the development of research and teaching in higher education. The PARI project aims to address these barriers by providing training and support to lecturers and researchers in Nepal to improve their access to research literature.

PARI: Research Methods

Mixed-Methods Approach:

- Primary research:
 1. Questionnaire study 200+ staff in universities.
 2. Interviews with senior academics
 3. Focus groups discussions with students
- Secondary research:
 1. Curriculum review



Advocating mixed-methods approaches in health research

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³ Professor, School of Health & Social Care, Bournemouth University, Bournemouth, UK.

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⁶ Research Leader, RAND Europe, Cambridge, UK.

Chief Editor

Dr. Brijesh Sathian

MacKenzie Bryers, H., van Teijlingen, E., Pitchforth, E. (2014) Advocating mixed-methods approaches in health research, *Nepal J Epidemiol* 4(5): 417-422.



This title
indexed



PARI: Staff Survey 2010

Aims

- To assess staff's IT access, experience in research-teaching, publishing, using electronic data bases, etc.

Methods

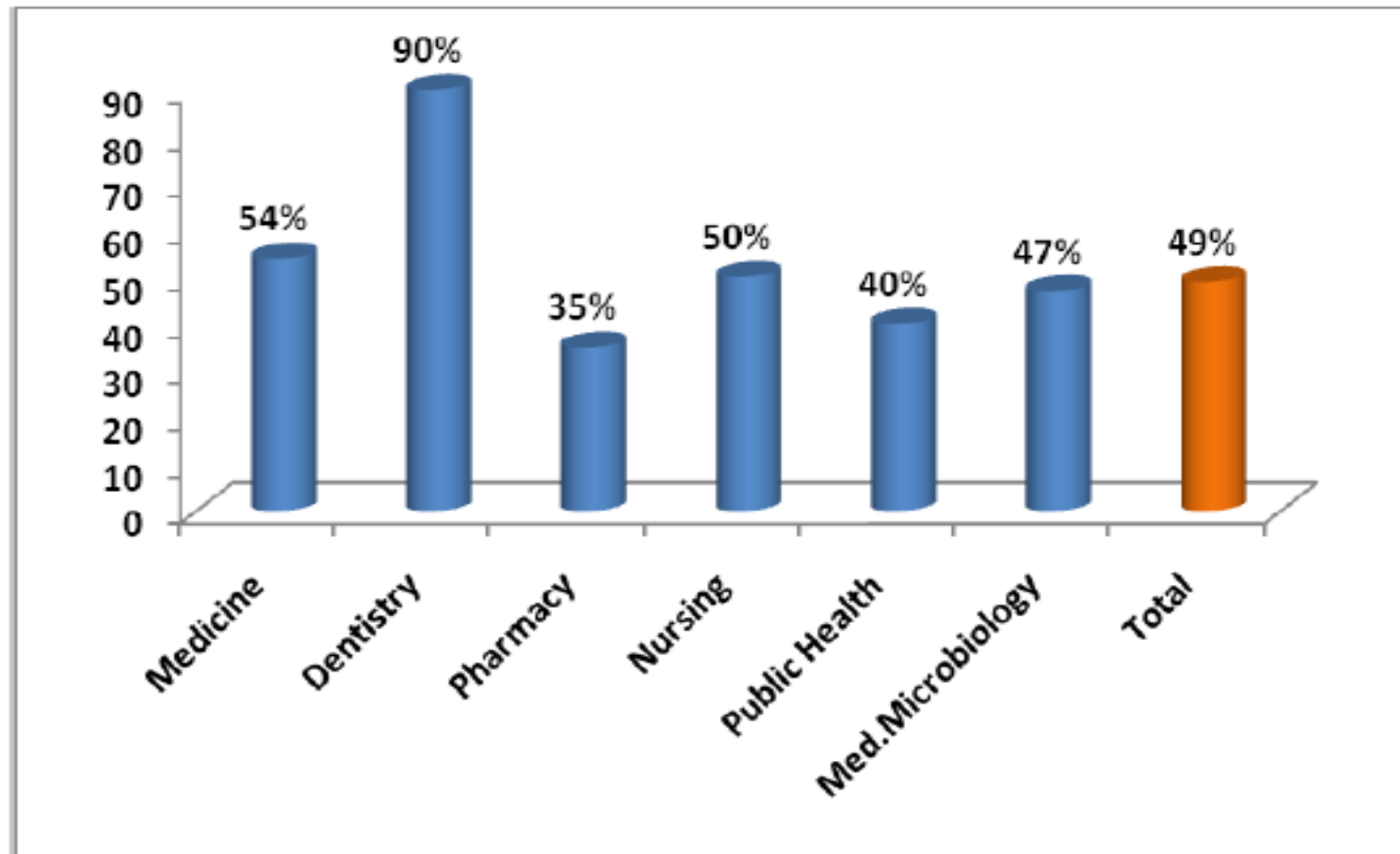
- Questionnaire study of over 200 members of staff of many colleges of four universities.

Table 3: HE teachers who have published research papers in peer reviewed journals

| 1. By University | No. | Percentage | χ^2 value |
|-------------------------|------------|-------------------|----------------------------------|
| TU | 32 | 57.1 | |
| PU | 25 | 33.3 | |
| KU | 36 | 53.7 | P=0.023 |
| PoU | 6 | 26.1 | |
| BPKIHS | 17 | 73.9 | |
| Total | 116 | 47.5 | |

| 3. By gender | | | |
|---------------------|------------|-------------|----------|
| Male | 73 | 67.6 | |
| Female | 43 | 31.6 | P=<0.001 |
| Total | 116 | 47.5 | |

Figure 1: Teacher access to electronic database by discipline



PARI: Staff Survey 2010

- Most respondents were female, had MSc, 1-5 years experience, quarter was <30 , nearly half aged 30-39.
- Only 47.5% published in journal; men & higher ranks more likely than women/lower ranks.
- Internet in nearly all institutions, all had library.
- Few thought librarians supported accessing databases.
- PubMed & HINARI only elect. databases mentioned.
- Quarter institutions had some research capacity funding.

Staff Survey: Staff access to electronic resources

Whether or not electronic research databases were available and used by the HE teachers was the another key question of the study. On the whole, 119 out of 244 (48.8%) HE teachers reported that they had access to electronic research databases at their HEIs. The study

PARI: Qualitative Overview

- Heads of department, coordinators and principals of institutions offering health-related degrees were interviewed about: importance of research, IT facilities, students' motivation, skill /abilities staff in accessing research literature, curricula reviews, etc.
- Four focus groups with students, each with 7 to 12 participants. One FGD each was held at four different institutions with students from various health-disciplines.

PARI: Interviews

- All agreed research-methods teaching is important
- All claimed to have IT facilities, but: (a) not all computers were equally good; (b) not enough computers for all students; or (c) no generator.
- Electronic data bases were not always used.
- Generally positive about library staff's IT ability.
- Mixed responses about abilities of teachers on searching research literature. The notion was that younger staff was more familiar with IT in general
- Need for training recognised, both not widely available.

PARI: Student Focus Groups

Students IT literate, had home computers, some without internet. Internet used more socially than for study.

Computer labs open all day (6 AM to 6 PM) working days but these were not well managed.

Students used PubMed, HINARI, *BMJ*, *NEJM*, *WHO Bull.*, open-access journals, search engines (Google).

Lack of knowledge and experience in using of research literature among students and staff.

Accessing research literature should be in curriculum

Make accessing electronic data bases examinable to get students to study. Make it count.

Summary Nepal health research

Higher Educ. which is research-based or research focused seems to be in its infancy in Nepal, but growing.

Teaching at Nepalese universities appears to be more didactic than in the UK.

Health care workers need skills to find and assess available research evidence for their future practice.

Younger (newer) staff generally more familiar with IT.

University staff needs right attitudes, skills & confidence to offer research-based teaching (= *Capacity Building*).

Curriculum Review Method

Table 1: Course/Programme included in content analysis

| Level | TU | KU | PoU | PU | BPKI HS | Total |
|----------------|----|----|-----|----|------------|-------|
| Bachelor level | 11 | 4 | 6 | 4 | 6 | 31 |
| Master level | 26 | 20 | 0 | 1 | 27 | 74 |
| Total | 37 | 24 | 6 | 5 | 33 | 105 |

Legend: TU Tribhuvan University; KU Kathmandu University; PoU Pokhara University; PU Prubanchal University ; BPKIHS BP Koirala Institute of Health Science

Example Matrix: Undergraduate BSc Nursing

| Name of Programme | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| BSc Nursing | | | | |
| Literature review | √ | √ | √ | √ |
| Research design - qualitative/quantative | √ | √ | √ | √ |
| Statistics | √ | √ | √ | √ |
| Sampling | √ | √ | √ | √ |
| Ethical consideration in research | √ | | √ | √ |
| Writing up proposal | √ | √ | √ | √ |
| Citation and referencing | | | | |
| Systematic review/ meta analysis | | | | |
| Data analysis- | √ | √ | √ | √ |
| Data analysis software | | | | √ |

GAPS

Observations Curr. Review

- As expected much more research related contents at Master's level than Bachelor
- Content of research varies within the level
- Research component Bachelor varies from as low as 1% to over 20% of total course
- Some curricula are 'new', whereas others are more than a decade old
- MD: least defined 'research methods' curricula

Strengths

- Basic statistics included in most curricula
- Data analysis software
- Newly introduced curricula have more detailed research component.
- General health-related curricula have higher proportion of research related course
- Access to electronic research literature database is mentioned in some curricula

Gaps in most curricula

- Weighting research-related elements varies among disciplines: Clin./ lab-based curricula are less defined.
- Curricula vary within/between universities
- Most curricula lack contents in
 - Ethical consideration in health research
 - Citation and referencing
 - Systematic review
- Access elect. research literature can be improved

Curriculum Review

Nepal. Our key recommendations are that higher education institutions in Nepal need to review, where necessary revise existing health science curricula to strengthen their research methodology contents. Similarly, curricula should include more contemporary issues in research methodology training. The curricula should include clear instructions to students on how to access the most-up-to-date research literature and how to appraise the research articles.

EBP workshop 2011



How to read a paper

Three starter questions:

- Why was the study done and what were authors testing?
- What type of study did they do?
- Was design appropriate to broad field of research in question?

Parts of a paper

- A. Abstract
- B. Introduction/Background
- C. Methods
- D. Results
- E. Discussion
- F. References (Bibliography)

Find all key information

Find aims & objectives

Example slide from
workshop material aimed
at health staff on:
'How to read a paper'

Workshops 'outcomes'

- Concept and methodology of systematic reviewing was new to majority of Nepalese academics at workshops.
- There is a need for hands-on training skills on critical appraisal and interpreting systematic reviews by health professionals.
- One-day workshop in Kathmandu to bring as many directors of nursing & medical colleges together as possible to establish elements of EBP are most needed in health workforce.

Workshop Dhulikal 2010



Workshop team at BP Koirala Institute of Health Science (BPKIHS)



Overview PARI Dissemination

- Each of the three years included dissemination workshop;
- Dissemination through media;
- Academic dissemination:
 - Conferences
 - Scientific papers
 - Webpages (less succesful)

Media in English

TU faculty gets British Council aid

Himalayan News Service
Kathmandu, November 2

In a bid to strengthen health research in the country, the British Council today announced a grant of Rs 10 million to Tribhuvan University Central Department of Population Studies.

TU, the University of Aberdeen, Bournemouth University (both UK) and the Development Resource Centre have initiated a project 'Partnership in improving Access to Research Literature

The Rising Nepal

MISCELLANEOUS

January 1, 2011 Poush 17, 2067 B.S., Saturday

TU, UK varsities join hands to strengthen health research

By A Staff Reporter
Kathmandu, Dec 31

Tribhuvan University of Nepal and three UK universities and the Development Resource Centre have formed a Partnership on Improving Access to Research Literature for Higher Education Institutions (PARI) in Nepal with an aim to strengthen health research

Population Studies said.

When many students are leaving for study abroad, PARI strengthens research capacity in Nepal which in the long-run may encourage talented people to stay or return to the country, he said.

The PARI is organising five international workshops on 'Access to Health Research and

staff when it comes to accessing the internal literature online, PARI will encourage high calibre research and teaching in this country."

Dr. Julie Bruce from Warwick University said, "We need to move away from textbook teaching in health care and teach our students about finding the most appropriate evidence-based treatment for

THE KATHMANDU POST | SUNDAY, JANUARY 2, 2011

'Increase access to the internet'

POST REPORT

KATHMANDU, JAN. 1

ACADEMICIANS on Saturday expressed the need to increase the access of medical students to the internet in order to facilitate evidence-based research and identify emerging diseases in the country.

Addressing a workshop, coordinator of Partnership on Improving Access to

Research Literature for Higher Education Institutions in Nepal (PARI), Prof. Ram Sharan Pathak said, "The universities here lack access to the internet, making it difficult for students to assess research-based information on medicine, pharmacy and public health. As a result, the students have not been able to study academically any emerging

disease and take immediate control measures." PARI is a joint initiative taken by Tribhuvan University and the UK-based University of Sheffield, University of Aberdeen and Bournemouth University as well as the Development Resource Centre for identifying health resource information and stressing the need of evidence-based practice.

Edwin from university, Visiting IS said, profile in Nepal across s." Devkota ment noted, te to the research location

Media in Nepali

विश्व विद्यालय कतिमा

अनुसन्धान कृतिमा पहुँच बढाउन परियोजनाको थालनी

विश्वविद्यालयका प्रा.डा. साधनप्रसाद शर्माले विश्वविद्यालयको विद्यार्थीहरूलाई अनुसन्धान कृतिमा पहुँच बढाउन परियोजनाको थालनी गरिएको छ।

प्रा.डा. साधनप्रसाद शर्माले विश्वविद्यालयको विद्यार्थीहरूलाई अनुसन्धान कृतिमा पहुँच बढाउन परियोजनाको थालनी गरिएको छ।

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अन्तर्राष्ट्रियकरण लागि त्रिविमा अनुसन्धान परियोजना

Thursday, Dec 3, 2009 - 10:45 AM

राजधानी काठमाडौंमा

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अनुसन्धान आधारित अध्ययन



हाम्रो शिक्षाको पाठ्यक्रम फेरि १० वर्ष लाग्छ। गुरुहरू आफूले पढेको कुरा मिनेटमिनेटमा परिवर्तन भइरहेको चाल पाउँदैनन्। समग्रमा हाम्रो शिक्षा अनुसन्धान र त्यसले देखाउने तथ्यमा आधारित छैन। यही समस्यालाई सम्बोधन गर्ने कोसिस गरेको छ, उच्चशिक्षामा नेपाली शिक्षकलाई सघाउने परियोजना (परी) ले। स्कटल्यान्डको एवर्डिन र बर्नेमाउथ विश्वविद्यालय, डीएफ आईडी तथा ब्रिटिस काउन्सिलको सहयोगमा सञ्चालन हुने यो परियोजनाले विद्यार्थी र शिक्षकलाई वर्षौं अघि

लेखिएका पुस्तकका आधारमा नभई भर्खरै गरिएका अनुसन्धानले देखाएका तथ्यहरूका आधारमा अध्ययनअध्यापन गर्न प्रेरित गर्नेछ। 'त्यसका लागि अनुसन्धान गरिएका दस्तावेजहरूमा शिक्षक विद्यार्थीको पहुँच बढाउन खोजिएको छ', एवर्डिन विश्वविद्यालयका प्राध्यापक पदम सिम्खडा भन्छन्। त्यसैगरी बर्नेमाउथ विश्वविद्यालयका प्राध्यापक भ्यान तेइङिलेन भन्छन्, 'हामी हाम्रो विश्वविद्यालयमा भएका पाठ्यक्रम सुधार कार्यक्रम र अनुभवको आदानप्रदान गर्न तयार छौं।'

Anna Purna POST 8/12/2009



DFID



Central Department of Population Studies
Faculty of Humanities and Social Sciences
Tribhuvan University

Handbook for Research Methodology

Approaches and Techniques

Lead Coordinator : Ram Sharan Pathak

Compiler / Editor : Bidhan Acharya

March 2013
Kirtipur, Kathmandu, Nepal



Output

*Handbook for Research
Methodology*

Freely available
online at:

http://paridelphe.edu.np/wp-content/uploads/RM_Handbook_Final_Press_09_Apr_2013.pdf

Conferences



- Bournemouth Univ. 2011 *Global Vision Conference* ‘International development through collaborative evidence-based practice workshops in Nepal: an example of Internationalisation.’
- Reading, UK 2012 BNAC conference: ‘Systematic review workshops on collaborative evidence-based practice for higher education institutions in Nepal’.
- Poster 13th World Congress on Public Health (Ethiopia, 2012), ‘Improving Access to Health Research Literature for HE Institutions in Nepal’
<https://wfpha.confex.com/wfpha/2012/webprogram/Paper9064.html>

Discussion points??

- Why do staff not know about resources such as HINARI?
- Can we build capacity that is fit for purpose? The more we train Nepal's health professionals the more employable they become in the West.

सोशल साइन्स बहाः
SOCIAL SCIENCE BAHA

THANK YOU!



Central Department of Population Studies
Faculty of Humanities and Social Science
Tribhuvan University



75 YEARS OF
CULTURAL
RELATIONS



विकास स्रोत केन्द्र
Development Resource Centre (DRC)

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University
Of
Sheffield.



LIVERPOOL
JOHN MOORES
UNIVERSITY



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