



UNIVERSITY of OULU
OULUN YLIOPISTO

ADHERENCE TO SELF-CARE

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CONTENT

- Some general points of adherence
 - Adherence rates
 - Concept adherence
 - Measurement of adherence
- The factors connected to adherence with health regimens
- Adherence of elderly people with health regimens and self-care



GENERAL POINTS OF ADHERENCE WITH HEALTH REGIMENS ³

- Lack of adherence is a major problem - it is worldwide problem
- approximately 50% of people with chronic conditions have good adherence (varies 10-85%)
- Adherence of short-term care about 95 %
 - Adherence to healthy life-style approximately 40%



GENERAL POINTS OF ADHERENCE WITH HEALTH REGIMENS

- It is increasing problem because the number of chronic disease is increasing
- Over 75 years old around 70% have some chronic disease and only half of them have good adherence with health regimens (Doggrell 2010, Alhewiti 2014)



ADHERENCE RATES

- Medical treatment 32-79% (adolescents 18-95%)
- Exercise recommendations 10-80% (adolescents 0-80%)
- Recommendations of healthy life-style (diet and exercise) 8-70% (adolescents 0-87%)
- Visit follow up control 40-86% (adolescents 52-90%)
- Diet (chronic disease) 15-80% (adolescents 24-86%)



ADHERENCE RATES

- Non-adherence with low-fat, low-cholesterol diets
15% - 88%
- Non-adherence with weight reducing diets -
greater than 90%

- Dunbar-Jacob 2010



ADHERENCE RATES - CHALLENGE TO COMPARE RESULTS

- Different concepts - not defined
 - Different definitions
- Different ways to evaluate adherence



ADHERENCE WITH HEALTH REGIMENS

- Why the people should have good adherence with health regimens?
- Why the people does not have a good adherence with health regimens?



SYNONYMOUSLY USED TERMS

- compliance
- adherence
- therapeutic alliance
- cooperation
- concordance
- persistence = 1) persistence (continuity) 2) compliance



COMPLIANCE

- Haynes (1978) defined compliance as “the extent to which a person’s behaviour (taking medications, following a recommended diet, or executing life-style changes) coincides with medical or health advice.” (pp. 1-2).
- Haynes R.B. (1978) Introduction. In: Compliance in health Care (Haynes R.B., Sackett D.L., & Taylor D.W., eds.) John Hopkins Press, Baltimore, USA, pp. 1-18.



ADHERENCE

- Is an active, intentional and responsible process of care, in which the individual works to maintain his or her health in close collaboration with the health care providers
(Kyngäs 1995, 1999)



MEASUREMENT OF ADHERENCE

- **Direct methods**

e.g. blood and urine tests, pills count

- **Indirect methods**

e.g. interviews, observation

Questionnaires



TO 'CLASSIFY' ADHERENCE

- Good adherence
 - Satisfactory adherence
 - Poor adherence
-
- Meaning of classification?



EXAMPLE: ADHERENCE TO MEDIATION TREATMENT

Patients with IDDM insulin is taken:

- **More than 80% as recommended = Good adherence**
- **60-80% as recommended = Satisfactory adherence**
- **less than 60% as recommended = poor adherence**
 - **How to define - how to classify?**



FACTORS CONNECTED TO ADHERENCE

Factors connected to:

- 1) Patients
- 2) Environmental factors

1) Patient's connected factors

- Age, education level
- Motivation
- Self-efficacy
- Earlier good experiences about care/treatment
- Values such as health and well-being
- High life control, good self-evaluated resources



FACTORS CONNECTED TO ADHERENCE

- Cognitive - emotional factors: knowledge, skills, understanding of self-care demands, emotional factors such as fears, depression and anxious
- Meaning of treatment/care
- The nature of disease
- Financial situation



FACTORS CONNECTED TO ADHERENCE ¹⁷

2) Enviromental factors:

- Support (informational, emotional and instrumental) from family members, peers, health care providers
- Health care system and its services
- Organization of care: it faces patient's needs, positive experiences, the number of follow up visits
- Realtionship between patient and health care providers → support and genuine interest in people by her/himself, to be heard, postive feedback, together set realistic goals of the care



FACTORS CONNECTED TO MEDICATION ADHERENCE

- Duration of medication: Short or long term treatment
- The number of dosage of medication per day
- The dosing method of medication (oral, inhalation, injection, crème....)
- Side-effects of medication
- Effects of medication on symptoms/ no symptoms
- The number of health regimens to adhere (diet, medication, exercise - the more the problematic to adherence)
- Forgetting
- Unnecessary
- To change experience
- Cost of medication



ADHERENCE OF GLAUCOMA PATIENTS

- Mean age; intervention group mean age 63,4 and control group mean age 67,6 years
 - 58 % has good adherence
 - 70 % has good adherence to medical care
 - 96 % regularly in follow up visit
- female had better adherence with health regimens than male ($p = 0.35$)



ADHERENCE OF GLAUCOMA PATIENTS*

Factors that explain adherence with health regimens:

- Satisfaction to patient education
- Good motivation for care
- Sense of normality
- Support from family members and friends
- Support from nurses and medical doctors
- Experienced results of care

*Lunnela J, Kääriäinen M. & Kyngäs, H. 2011. Adherence of Finnish people with glaucoma to treatment plans and connected factors. *International Journal of Circumpolar Health* 70, 79-89.



WEB-BASED INTERVENTION FOR IMPROVING ADHERENCE OF PEOPLE WITH GLAUCOMA*

- **Design:** A non-randomized experimental design with intervention of test (n=34) and control (n=51) groups.
- **Method:** The **intervention group** received web-based patient education and support intervention. The **control group** received the traditional patient education and support.
- **The data** were collected by self-reported ACIDI instrument at baseline and follow ups (two and six months)
- Lunnela J, Kääriäinen M & Kyngäs H. 2011. Web-based intervention for improving adherence of people with glaucoma. *Journal of Nursing and Healthcare of Chronic Illness*, 3, 119-129.



WEB-BASED INTERVENTION FOR IMPROVING ADHERENCE OF PEOPLE WITH GLAUCOMA*

Results:

- ❑ Participants in both groups showed improvement in their adherence BUT no statistical significant differences
- ❑ Adherence to care, support from nurses and physicians and care planning improved more in the intervention group than in the control group

*Lunnela J, Kääriäinen M & Kyngäs H. 2011. Web-based intervention for improving adherence of people with glaucoma. *Journal of Nursing and Healthcare of Chronic Illness*, 3, 119-129.



INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE OF ELDERLY - INTEGRATIVE REVIEW*

- Medline-, Cinahl- and Medic databases and manually search, 2003-2013.
- After quality assurance 9 articles
- Individual interventions;**
 - motivational interviewing (e.g. Brodie & Inoue 2005, Brodie ym. 2008)
 - rehabilitation program (Mailloux ym. 2006)
- Group counselling interventions (lasts 6 weeks to 10 weeks)**
 - Discussions in the group by guiding the group leader

Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä - integroitu katsaus. *Hoitotiede*, 27 (1), 3-17.



INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE OF ELDERLY - INTEGRATIVE REVIEW*

- Technology-oriented counselling interventions (6 months 24 months); telephone follow-up, computer programs or tele-guidance** (e.g Clark ym. 2007, Holst ym. 2007, Strömberg ym. 2006, Holst ym. 2007, Balk ym. 2008, Trief ym. 2009).

Measurements:

- Questionnaires;** self-care behaviour, quality of life, motivation to change self-care, self-efficacy, health status
- Clinical outcomes** such as physical activity, blood tests, health status
- Interviews**
- knowledge from patients records**

Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä: integroitu katsaus. *Hoitotiede*, 27 (1), 3-17. 14.12.2015

INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE IN ELDERLY - INTEGRATIVE REVIEW*

All interventions had a positive impact to adherence in elderly

Adherence improved quality of life, knowledge, self-efficacy, personal resources, physical health and blood sugar in elderly

*Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä - integroitu katsaus. Hoitotiede, 27 (1), 3-17



INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE IN ELDERLY - INTEGRATIVE REVIEW*

Some effects of motivational interview

- 1) statistically significant difference in **social action** ($p < 0.03$) and **health status** ($p < 0.006$) (Brodie ym. 2008.)
- 2) adherence improved **physical condition** (Brodie & Inoue 2005, Mailloux ym. 2006)
- 3) **motivation and self-confidence for adherence** was improved

Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä - integroitu katsaus. *Hoitotiede*, 27 (1), 3-17



INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE IN ELDERLY - INTEGRATIVE REVIEW*

Some effects of group counselling

- better blood test results (statistically significant finding ($p < 0.001$) by Haltiwanger & Brutus 2012)
- Better self-efficacy ($p < 0.03$), motivation to change life-style ($p < 0.001$) and resources to do that ($p < 0.0042$)
- Improved understanding of own responsibility on healthy life-style and to be more confident

*Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä - integroitu katsaus. Hoitotiede, 27 (1), 3-17



INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE IN ELDERLY - INTEGRATIVE REVIEW*

Technology based interventions was improved:

- Self-care (Strömberg ym. 2006, Holst ym. 2007)
- Activity to participate in telephone follow up (Clark ym. 2007),
- Knowledge of disease (Strömberg ym. 2006, Balk ym. 2008)
- Quality of life (Strömberg ym. 2006, Holst ym. 2007, Balk ym. 2008)
- Health status (Holst ym. 2007, Trief ym. 2009)
- Self-efficacy (Trief ym. 2009)

Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä - integroitu katsaus. *Hoitotiede*, 27 (1), 3-17



INTERVENTIONS DESIGNED TO PROMOTE ADHERENCE IN ELDERLY - INTEGRATIVE REVIEW*

Techonology based interventions:

- Elderly people was followed more regularly their weight
- Adherence was connected to knowledge of disease and its self-care ($p = 0.03$, $p < 0.001$) (Strömberg ym. 2006, Balk ym. 2008)
- was improved adherence with diabetes care ($p < 0.0001$) and it was connected to better blood sugar values ($p < 0.0001$) via self-efficacy ($p < 0.001$). (Trief ym. 2009.)

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*Kurikkala P, Kääriäinen M, Kyngäs H & Elo S. 2015. Hoitoon sitoutumisen edistämiseksi toteutetut interventiot ja niiden vaikutukset ikääntyneillä - integroitu katsaus. Hoitotiede, 27 (1), 3-17



CONCLUSION

You need to:

- be able to recognize adherence issues and to be able to 'classify' it
- be aware and understand the factors connected to adherence with health regimens
- discuss adherence with elderly people

To improve you need:

- Patient centered counselling
- To recognize patient's needs
- To set realistic goals for self-care
- Positive feedback and support



THANK YOU FOR YOUR ATTENTION

